



**MOBILIS**



JET 9000 QL PF6

**RIVER AND SEA EQUIPMENT**



# MOBILIS EVOLUTION

**1990**

MOBILIS founded in Aix en Provence, France.

**1992**

First hybrid modular buoy – « JET » series.

**2005**

Second generation of hybrid modular buoy – « LB » and « SP » series - 100% synthetic.

**2006**

First range of data buoys (metocean, offshore...)

**2010**

Remote control and monitoring system.

**2012**

The MOBILIS rotomolding factory opened in France.

**2014**

MOBILIS created CALMAR mooring line calculation software to calculate and design mooring systems by the end user using site specific parameters.

**2016**

CALMAR software is accepted by IALA and available on IALA website to be downloaded and used for free.

# ABOUT US

Started in 1990, MOBILIS has extensive experience in the design and the manufacture of Aids to Navigation equipment. MOBILIS's main objective is to produce a quality product that will offer a long life with good performance in extreme sea conditions. Our second objective is to significantly reduce life time maintenance costs.

MOBILIS's skilled and creative Engineering department provides continuing development of all our product range, combining technology and innovation. Our continuing development and product improvement is the result of a strong relationship between the MOBILIS team and the end users.

Located in France, MOBILIS selects raw materials based on 25 years experience in the industry; these materials prove resistant in harsh marine conditions. Our Quality department monitors each step of the manufacturing process; from raw materials selection through to the end of production, inspecting each part of the equipment produced. This quality policy brings reliability and durability to MOBILIS products for our customers and the end user.

To ensure MOBILIS's commitment to after sales services and maintenance MOBILIS has a sales network on five continents providing dedicated technical support by professionals trained on MOBILIS product specifications.

Our know-how with more than 25 years experience and our willingness to innovate by improving our products and solutions allow MOBILIS to be a world leader in Aids to Navigation equipment.

# NAVIGATION BUOYS

MOBILIS offers a complete range of hybrid and modular buoys suitable for all site conditions:

- ◆ Towers and topmarks, made of marine grade aluminium, polyethylene or polyurethane.
- ◆ Modular and waterproof floats, foam free. Polyethylene floats are UV resistant (UV16).
- ◆ Central steel structures or central polyethylene structures.

MOBILIS buoys are recognised for their unique performance and their reliability when deployed in hostile site conditions (strong current, tidal range, swell and wind).

The raw materials selected reduce the need for maintenance operations by two to three times compared to traditional buoys. The health and safety of maintenance personnel on buoys is a major concern of MOBILIS, so our buoy design and use of quality materials, are a fundamental part of the long-lasting evolution of its equipment.

MOBILIS equipments have an extended warranty of 5 years.



**JET 9000**  
Exploded view



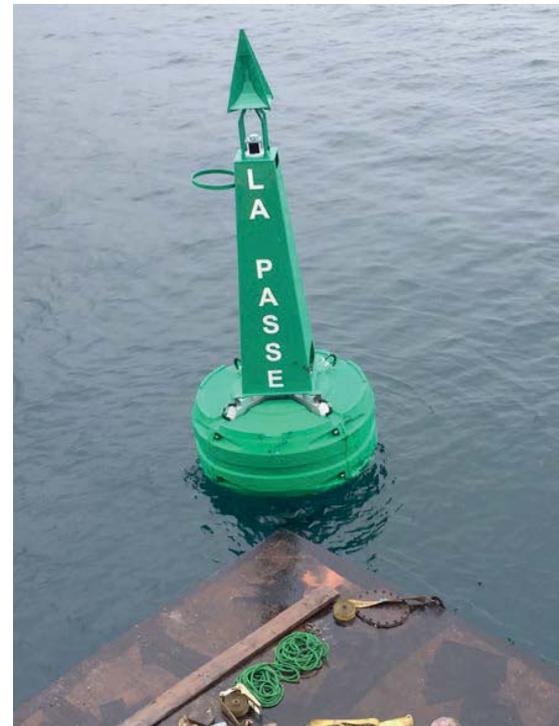
**JET 9000 QL PF6**  
Focal plane: 6m  
Location: France



**LB 3000**  
Focal plane: 4m  
Location: Netherlands



**ES 630**  
Focal plane: 1,8m  
Location: France



**JET 5000**  
Focal plane: 3m  
Location: Madagascar

# BC 1500



Voyant réflecteur radar  
Radar reflector top mark

Platine pour feu standard  
Plate for Standard Lantern

Point de levage CMU 3 t  
Lifting Point SWL 3 t

Flotteur PE  
PE Float

Rouge RAL 3020  
Red RAL 3020

Anode sacrificielle  
Sacrificial anode

Structure en acier peint  
Coated Steel Structure

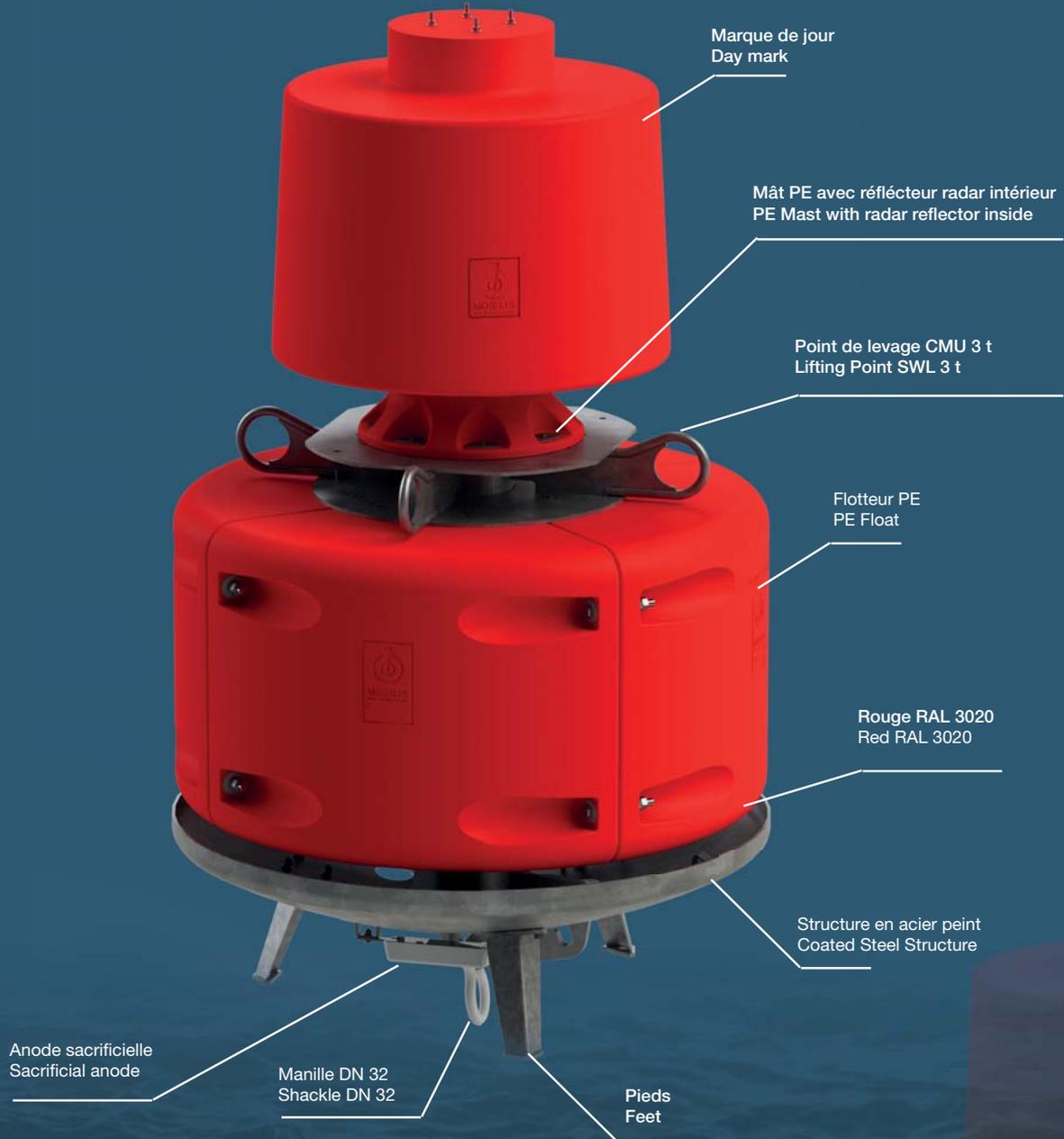
Lest  
Ballast

Point d'amarrage  
Mooring point

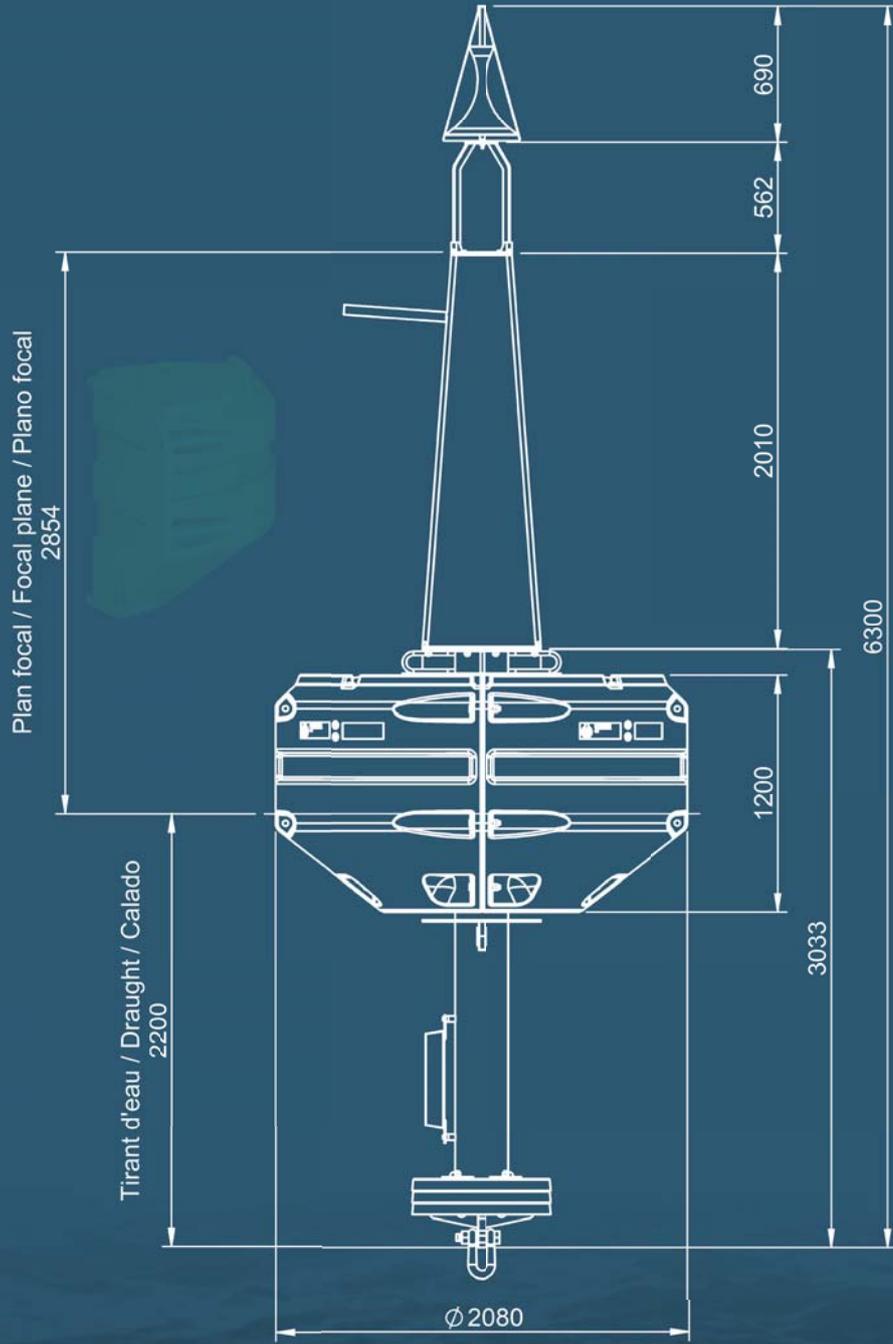
Manille DN 42  
Shackle DN 42

<b>Diamètre</b> Diameter	<b>1.5 m</b>
<b>Volume</b>	<b>1270 L</b>
<b>Poid</b> Weight	<b>460 Kg (with ballast)</b>
<b>Flottabilité nette</b> Net buoyancy	<b>810 Kg</b>

# FB 1500

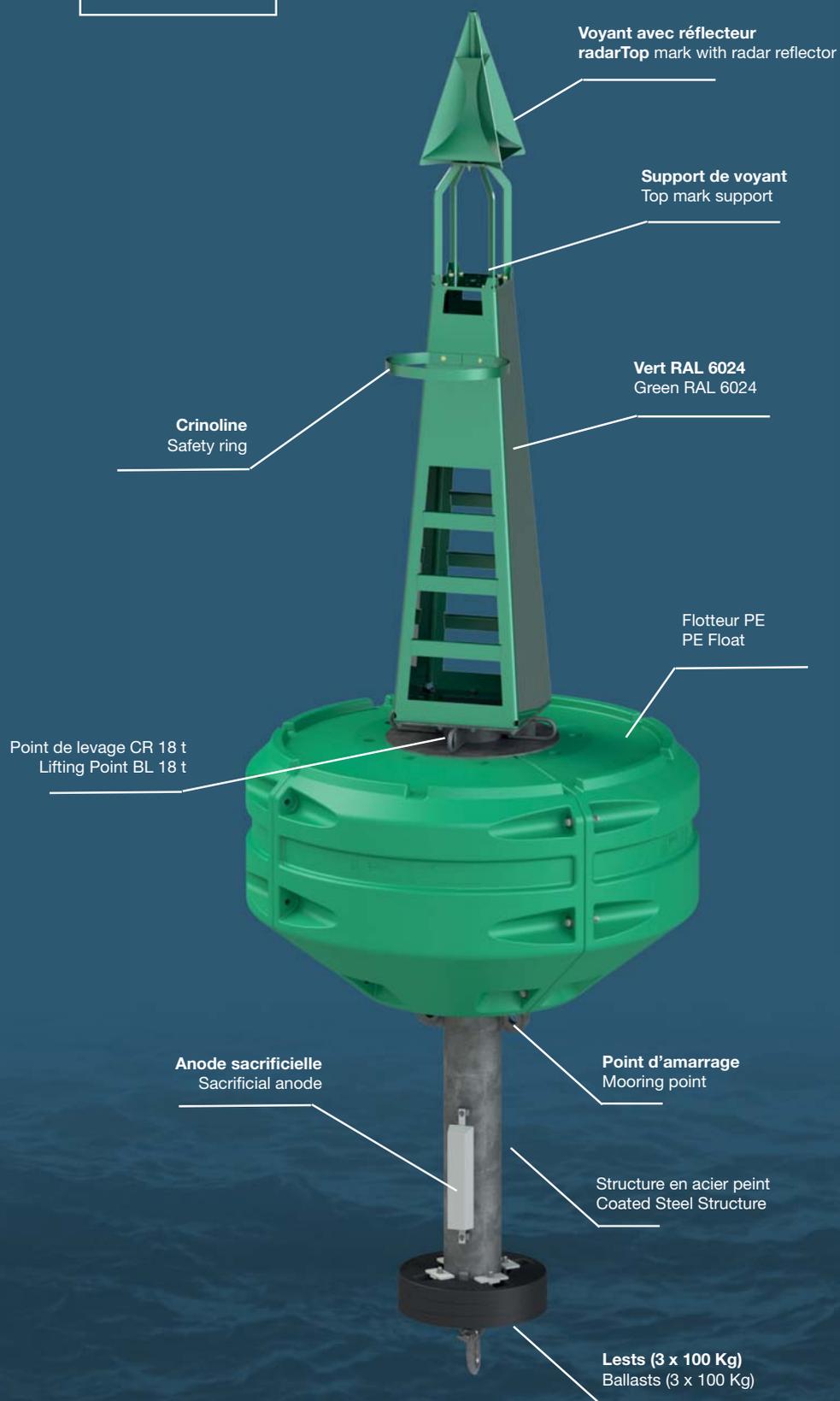


Diamètre Diameter	1.5 m
Volume	1270 L
Poid Weight	500 Kg
Flottabilité nette Net buoyancy	770 Kg



<b>Diamètre</b> Diameter	<b>2 m</b>
<b>Volume</b>	<b>3000 L</b>
<b>Poid</b> Weight	<b>978 Kg (with ballast)</b>
<b>Flottabilité nette</b> Net buoyancy	<b>2 022 Kg</b>

# JET 3000

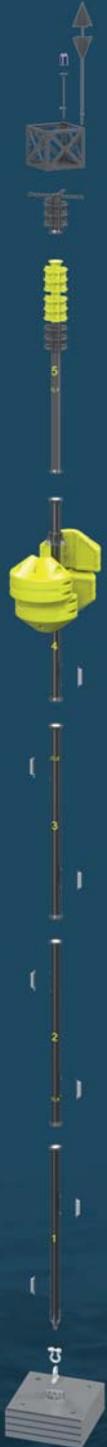


# ARTICULATED SUBMERGED FLOATING BEACON - BFI

MOBILIS has developed a range of articulated beacons which offers numerous advantages:

- Precise location marking: the link between the sinker and the steel structure drastically reduces the swinging radius compared to “traditional” buoys.
- Stability: the vertical thrust generated by the submerged float ensures a very good stability.
- Visibility: an articulated beacon offers a high focal plane above sea level.
- Maintenance: as there is no mooring chain on the sea bed as compared with extended mooring lines for traditional buoys, this system greatly reduces maintenance costs. Also the sacrificial anodes fixed to the steel structure protect the articulated beacon against marine cathodic corrosion.
- Life expectancy: articulated beacons have a life expectancy greater than 20 years.

“For each site, a dedicated beacon”: our Engineering Department optimises the design calculations of each articulated beacon to suit the conditions of each site and the customer specifications.



**BFI**  
Exploded view



**BFI 2500-2**  
Focal plane: 6m  
Location: France



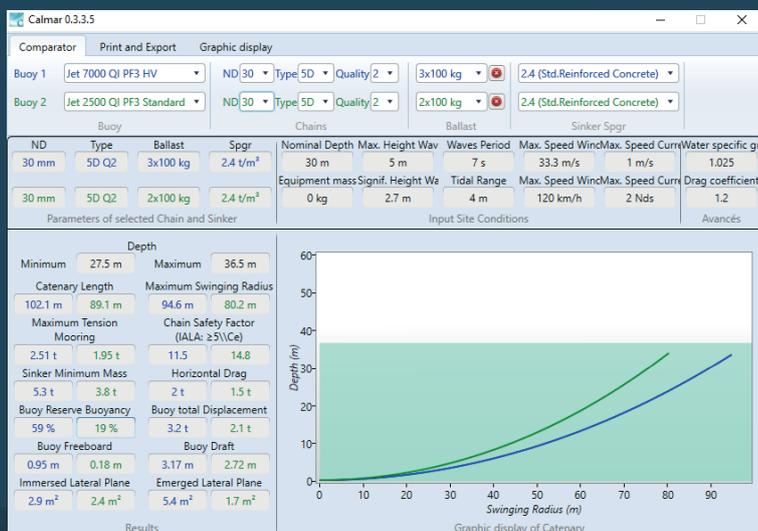
**BFI**  
Focal plane: 8m  
Location: Brazil



**BFI 2500-1**  
Focal plane: 4m  
Location: Israel

# CALMAR MOORING LINE CALCULATION SOFTWARE

Developed by MOBILIS, CALMAR is a software package which calculates mooring line length, which has been approved and validated by IALA. This tool, translated into several languages, uses numerous site parameters. CALMAR helps the end user to select the buoy model according to different criteria such as the reserve of buoyancy, the swinging radius etc. A simulation of the buoy in neutral conditions, "A peak", and in the conditions of "Full Load" is modelled. The purpose is to observe the visibility of the buoy in both conditions. The user can also compare two buoy models in the same site conditions and see their individual performances.

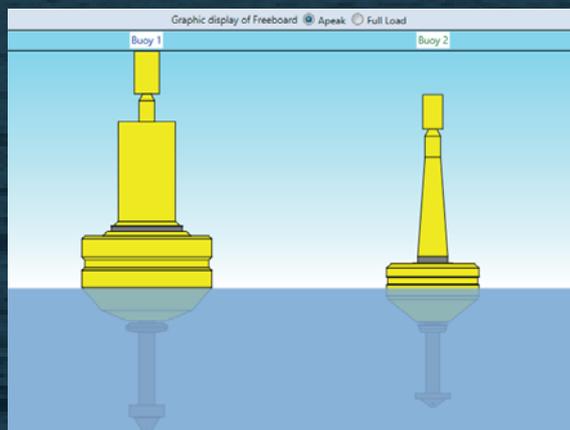


Data given by the user:

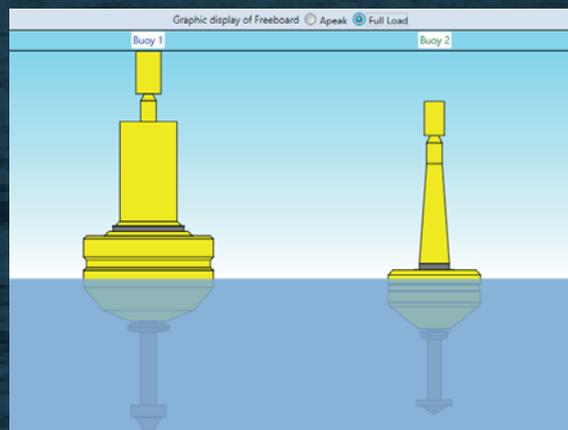
- Characteristics of the buoy
- Type of chain
- Depth
- Tidal range
- Maximum current speed
- Maximum wind speed
- Maximum wave height
- Period of the swell
- Material to build sinker (concrete, cast iron,...)

Results obtained in maximum site conditions:

- Catenary Length
- Maximum swinging radius
- Maximum tension on mooring line
- Sinker minimum mass (cast iron, concrete or steel)
- Buoy reserve of buoyancy



At peak



Full load

Download link : <http://www.iala-aism.org/products-projects/technical-area/calculation-working-tools/calmar-mooring-line-calculation-software/>

# MARINE LIGHTS

MOBILIS has selected a range of the best available lanterns:

- LED marine lanterns with low energy consumption: power consumption and luminous intensity ratio are the most efficient available,
- Marine lanterns are programmed by Bluetooth or Infrared,
- Monitoring of buoy lanterns can be made on site from a maintenance vessel by using Bluetooth (no need to climb onto the buoy),
- Lanterns can be self-contained or powered by dedicated solar or wind power systems,
- Remote marine lantern monitoring can be done by radio-link, GSM, satellite or AIS.

MOBILIS develops solutions which integrate the monitoring system of Port entry lights, fixed beacons and floating beacons with various transmission means: UHF, VHF, GSM, satellite or optical fibre.

Remote monitoring allows for real time lantern status and position using an ergonomic touch screen for each marine light.

The engineering department develops custom-made solutions to satisfy the customer's specifications and the geographical location of marine lanterns.





LED 350



LO 200



LED 160



LED 155



PS 08 + AIS + LED 155



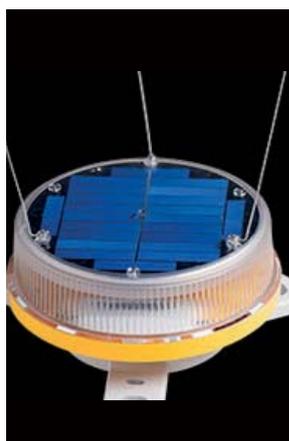
PS 313 + LED155



M 550



M 650



M 660



M 860

MOBILIS RENTAL AND SERVICES SHINDONG BAOWE HUBEI CONSTRUCTION DJIBOUTI GEO SR  
DDE DE BAYONNE TRAVAUX MARITIMES INTERNATIONAUX ASTEN CONSEIL GENERAL DE LA SOMME DREDGING INTERNATIONAL HLB ENVIRONNEMENT  
CONSEIL GENERAL DE LA GUADELOUPE THE EGYPTIAN OPERATING COMPANY BO HERMANSON LDA ABIDJANAISE REALISATION INDUSTRIELLE BITCOM SAS CASADELMAR  
INTERGROUBDISTRIBUICAO SEMVIE SHOM TLM LORRAINE CABLE CORDERIE DOR NANTES DEPOTS PETROLIERS DE LA CORSE EIFFAGE TRAVAUX MARITIMES ET FLUVIAUX STE GEHR-SEVERIN UNDESTRIEVERTRETUNG Mairie SAINT JEAN DE MONTS  
SOCIETE FERRO SERVICE CNRS AZCO ROV COMMUNAUTE URBAINE GRAND NAVY COMPT SAS CONSEIL GENERAL DU FINISTERE PORT AUTONOME INTERNATIONAL IFREMER TOULON  
MINISTRE DE LA MARINE MARCHANDE NAVIMO DISTRIBUTION EDITEL DEL CENTRO S.A. DE C.V. SERVICE PHARES ET BALISES SOTRASER CITEULUM  
SERBA MR DUNAND ROBERT MARCHAND SYNDICAT DE L'EAU ET PORT ABER ILLUT TECH YACHTING SA ARMT POCHAN CEE MARTINIQUE SHIMADA & CO LTD PORTO VECCHIO MARINE  
JESIGNALE TSA SOGETRAS LEDJAC CONSEIL GENERAL HAUTE-VIENNE SAS L'EXPRESS DES ILES ICCI SEA - SEABIRD SMNLR MONTPELLIER CONSEIL GENERAL HAUTE-LOIRE CODA RAMPINI & CIE SA A.T.P.M.  
FISHERIES RESOURCE SURVEYS PRONAUTIC BCRM BREST RELEV TECHNOLOGIES CAPITAINEE PORT DIELETTE NOUVEAU PORT ST JEAN CAP FERRAT SOUS MARINE SERVICES EUROTECH INTERNATIONAL COMPAGNIE MARITIME CHAMBIEN  
GEOCEAN SA ADVENS SOTM JACQUIER ERIC PECHERIE BIOETHIC CCI DES COTES D'ARMOR IN VIVO ENVIRONNEMENT SOCIETE DU CANAL DE PROVENCE Mairie DE L'EPINE  
DAEWOO SHIPBUILDING MARINE ENGINEERING CENTRE DE LA MER MOBILIS ASIA LYCEE PIERRE GILLES DE GENNES SNC SAIPEM BOUYGUES TP AUTORIDAD PORTUARIA EMIL  
CONSEIL GENERAL MORBIHAN DE HUELVA CALADEROS DEL MEDITERRANEO, SL Mairie DE SENNE TRAPSA ACCASTILLAGE DIFFUSION MARSEILLE OBSERVATOIRE OCEANOLOGIQUE LOV ATLANTIC MARINE Mairie DE REVILLE  
Mairie DE CREANCES L'ANCRE PORT OF ANTWERP COOPERATIVE MARITIME ERQUY DDE VENDEE / DIRMNAMO YVES CAUDERAY ESSI CORPORATION SOUTHERN PERU COPPER CORPORATION Mairie DE PORT BAIL  
ARCHIRODON CONSTRUCTION INMAA CAE COMMANDEMENT GENDARMERIE PAMANDZI GIPIREB Mairie DE SENNE LUIS ANDRES MARTINEZ GONZALEZ DIRECCION DE HIDROGRAFIA Y NAVEGACION COOPERATIVE MARITIME ETARLOISE CNES/CSG  
UPMC - SAIC CHANTIERS MODERNES SUD Mairie DE LA GRANDE MOTTE CHEVRON MAIRIE DE L'AIGUILLON SUR MER ORCA MARINE CARLIER CHAINES UNIVERSITA POLITECNICA DE CATALUNYA JEANJEAN GRAPHISME  
Mairie DE LA GRANDE MOTTE JAN DE NUL ASSOCIATION ARATAI ONF OFFICE NATIONAL DE FORETS SOTRASER-CITELUM LE SCAPHANDRE LE VOYAGE A NANTES (ISPL) KWANDA LDA RETIA DCN TOULON COPETECH-SM  
CAPITAINEE DE LA LONDE DES MAURES COMITE REGIONAL DES PÊCHES CORSE CHEYRESY & FASTOUT S.N.S.M. BMA MAIRIE DE ST FRANCOIS COLLECTIVITE DE ST-BARTHELEMY SHIPLEEG INRA CENTRE DE DALON YACHT CLUB INTERNATIONAL ST LAURENT CPM DRAAF PICARDIE BARILLEC CNRS UMR 5805 ERPOC  
LE FAOU ROMAN GUARRI FERME MARINE SPANO DEPARTEMENT DE LA VENDEE ACHATS SERVICE AQUACOLE SUB-SERVICES CONSTRUCTION PERRET FMC SOFEC FLOATING SYSTEMS INC CCI DE LA VENDEE EPBT CHARENTE  
SYNDICAT MIXTE DUNKERQUE NEPTUNE SEC.REG CONCHYLICULTURE BRETAGNE NORD ERBA BRM CLUB LEO LAGRANGE SARL MORETTI CECELEC SUD OUEST CAP L'ORIENT SWM SOTRAVIM CNIN CANDELORO NAUTIQUE CHERBOURG TERMINAL VRAC SUB OXYGENE  
INDUSTRIUM COLLECTIVITE TERRITORIALE DE CORSE SOFERTI ACMAPOR - MUSEE PORTUAIRE PORT DE LA RAGUE CHABERT HELENE SOLARTECH CANDELORO NAUTIQUE CHERBOURG TERMINAL VRAC CHERBOURG TERMINAL VRAC  
RESERVE NATURELLE NATIONALE M'BOUZI MAIRIE DE ST FRANCOIS TENESOL TOTAL ENERGIE CHABERT HELENE SOLARTECH CANDELORO NAUTIQUE CHERBOURG TERMINAL VRAC CHERBOURG TERMINAL VRAC  
NOLLET & FILS SAIPEM SA SOCIETE DU PORT DE PLASANCE SIFFE PORT GALICE FORCLUM LOIRE OCEAN PORT EN SEINE STE D'EXPLOITATION DES PORTS DE MONACO SARL BOURCIER FRANCE TURBOT SA  
CAPITAINEE CAMARET SUR MER LONDON MINING COMPANY LTD SATRA DIVON S.L. FOB SAS SEIMI ACI ROBINETTERIE INDUSTRIELLE NORTEKEMD C.T.S. SERVICE DES TRAVAUX PUBLICS Mairie DE SAINT TROPEZ  
VOIES NAVIGABLES DE FRANCE COPERNIC STORA ENSO CORBEHEM SAS OFFICE NAT. DE SIGNALISATION MARITIME UNIVERSITE PIERRE ET MARIE CURIE S.N.S.M. PORT DE CAVALLO IFREMER-BREST HYDROKARST  
TECHNICAP CETMEF BREST PETROBRAS CISHAN SIFA SUNTEK MARINE A.S.I.C. COOKRIDGE INVESTMENTS LTD BAULAND LYCEE JEAN PERRIN CCI NICE COTE D'AZUR  
ASSOCIATION GREMAT ALSACE PLAISANCE MAIRIE DE TOURLAVILLE SICASIL CABLES BARCHET SEMIS VIDAL DIFFUSION MARINE A.M.E.CO. Mairie DE COLLIOURE Mairie DE COLLIOURE  
SEMEN TR DREAL PARDON / SNEP COMMUNAUTE D'AGGLOMERATION RTE EDF TRANSPORT SEMIS VIDAL DIFFUSION MARINE A.M.E.CO. Mairie DE COLLIOURE Mairie DE COLLIOURE  
S.A.E.M. DE GESTION DU PORT VAUBAN INTERNATIONAL ELECTRIC EXPORT KWINKLE TECHNOLOGIES (PTY) LTD METEO FRANCE TRACTION LEVAGE MARSEILLE CAP CONSEIL GENERAL LOIRE ATLANTIQUE BOUYGUES TP REGIONS FRANCE UTILISATEURS DES RIVES DE PRUNIERE  
EQUIPMENT SERVICE Mairie DE LE FAOU DOE MANCHE GRANVILLE DIREN KIPAWA GARDE COTIERE CANADIENNE SOREL COMPAGNIE NATIONALE DU RHONAN BOUYGUES TP REGIONS FRANCE MARINE NATIONALE DE BREST  
RICCARDI GROUP CONSEIL GENERAL DU CALVADOS PORT AUTONOME DOUALA INTER LOCATION SMAT - PORT BOURGENAY PORT DE PLAISANCE DE LA ROCHELLE AUBRAC SIGNAL GO DEEP INTERNATIONAL INC. ADRAMAR S.N.C.M.  
RESERVE NATURELLE APAL CCI BREST Mairie DE PORTO VECCHIO COLAS STE LUXEMBOURGEOISE NEGOCE INTERNATIONAL BOUYGUES





# MOBILIS

+33.(0)4.42.37.15.00  
mobilis@mobilis-sa.com

## Headquarter

370 Rue Jean de Guiramand, BP 49000  
13290 Aix-en-Provence Cedex 3  
France

## Factory

25 rue Lavoisier  
ZI Jean Malèze  
47240 Bon-Encontre  
France

Conception: tventre13100@gmail.com



General Sales Conditions: Orgalime 2000