WP2 MAMA-OBS

Content

- **Overview of WP2**
- **Questions on operational data**
- **Questions on scales**
- **Question on an integrated coastal-ocean monitoring design**

WP2 MAMA-OBS – OBSERVING SYSTEM

- **A scientific assessment of existing ocean observing systems in the Mediterranean at regional, coastal and national scales will take place in order to design scientifically proven and cost effective real time coastal data acquisition systems, fully integrated to the basin scale system.**

- **Task 2.1 *Evaluation of existing coastal ocean observing platforms (hardware and equipment).* (NCMR)**

Instruments will be compared, to define the minimum requirements for 'quality good practices'. Common standards for data collection and common parameters essential for a Mediterranean operational observing system will be defined, as well as the minimum performance criteria.

- **Task 2.2 *Evaluation of basic data pre-processing procedures* (IOLR)**

The software used by each partner for data pre-processing procedures will be compared. The comparison will consider each partner requirements for common protocols controlling the software used in the operational collection and transmission of data.

- **Task 2.3 *Evaluation of the quality assurance protocols (ENEA)***

Protocols driving the operational activity from collection design, to fieldwork, data transmission, quality control and dissemination practices. All this aspects will be evaluated in order to define common protocols and achieve the defined 'minimum performance level' for operational systems.

- **Task 2.4 *Design of cost-effective operational coastal monitoring systems***

A design of the NRT upgrade of existing systems for an initial observing system with coastal components will be the final product of this task.

- Subtask 2.4.1 *Scientific assessment of ocean monitoring systems*
- Subtask 2.4.2 *Expert meetings on ocean observing systems*

Subtask 2.4.1 *Scientific assessment of ocean monitoring systems (S2AM)*

On the base of the information from WP1 and tasks 2.1 - 2.2 in this WP, alternative/new hardware and software will be proposed for development. The design will include hardware, software and transmission systems. An estimate of costs for updating the systems in the various countries will be done.

Subtask 2.4.2 *Expert meetings on ocean observing systems*

An expert meeting (to be conducted by ENEA and organised by IOI-MOC) will address the scientific assessment of ocean monitoring system and the design of observing systems integrating open sea and coastal systems. A final meeting, again, and shared with WP4, will provide a forum for the final design of an initial observing and forecasting system in the Mediterranean.

Task 2.5 *Evaluation of the NRT satellite data* ICM/CSIC. NRT satellite remotely sensed data (sea surface temperature, sea surface elevation, surface pigments concentration and altimetry) are an essential element of an observing system (i) for direct assessments such as of water quality conditions, and (ii) in relation to assimilation in producing forecasts.

Task 2.6 *Evaluation of biological benthic tools*

This task will be led by IMC, with the participation of IOC and IMBC. The aims is to bring awareness to the use of biological tools as an aid for monitoring coastal environments.

MAMA OBS

- WHAT CAN BE DONE IN AN OPERATIONAL WAY ?

(PARAMETERS, INSTRUMENTS, METHODOLOGIES FOR DATA COLLECTION, TRANSMISSION, q.c. AND DISSEMINATION IN NEAR REAL TIME)

MAMA OBS

- WE CANNOT MESURE EVERYTHINK. WHAT ARE THE TEMPORAL AND SPATIAL SCALES TO BE PREFERENTIALLY BE INVESTIGATED?

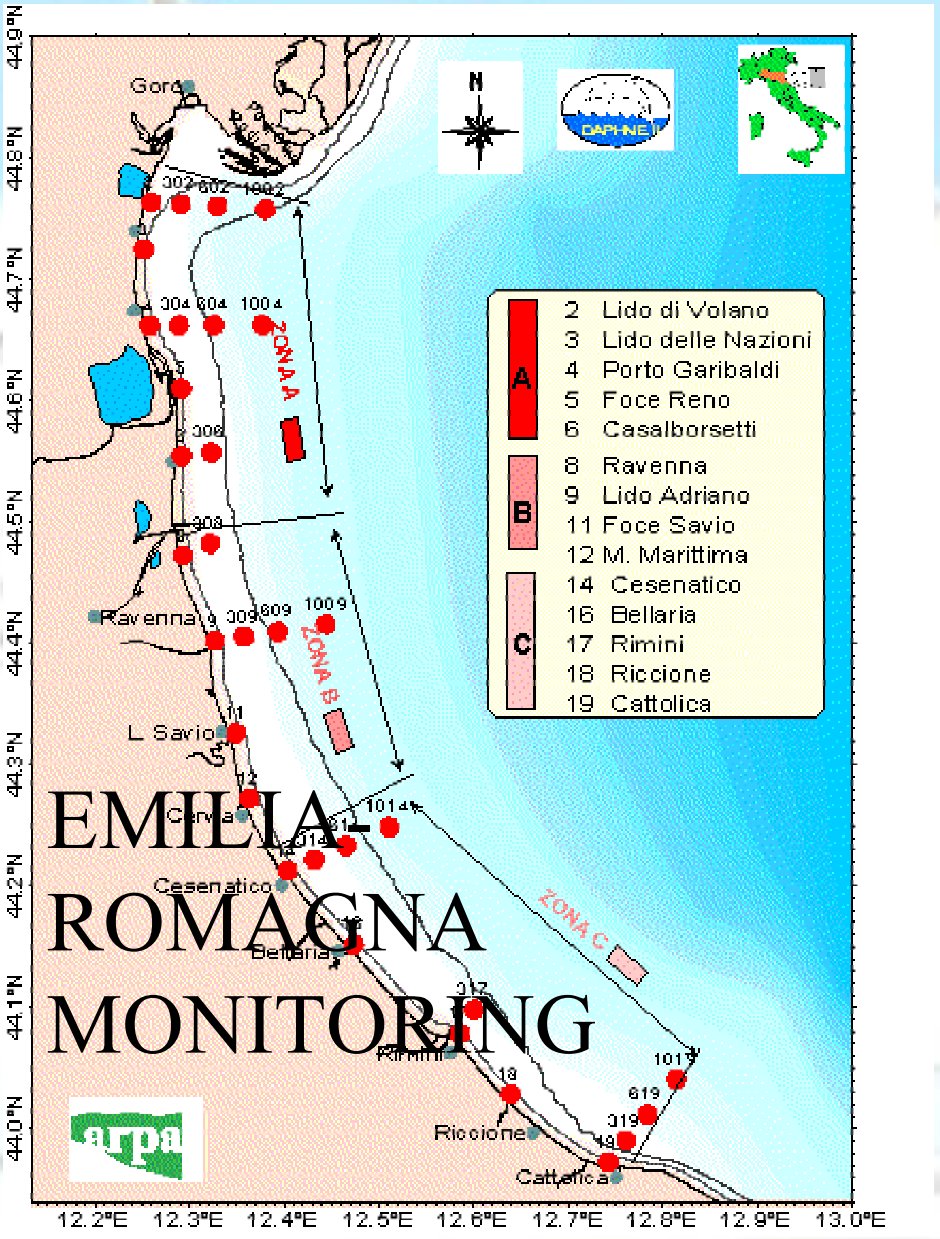
(THE COASTAL - SHELF - OCEAN DYNAMICS INTERACT)

MAMA OBS - WHAT TO DO

- Task 2.1 (NCMR) - will provide an overview of coastal observing systems

requested information: instruments, sensors, precisions, data collection methodologies. The aim is the definition of the ‘minimum requirements’ of ‘good practices’.

POSEIDON



EMILIA ROMAGNA MONITORING

MAMA OBS - WHAT TO DO

- Task 2.2 (IOLR) - will provide an overview of software used for pre-processing

requested information: software used for data collection, elimination of spikes, resampling, smoothing, Q.C. The aim is the establishement of procedures assuring comparability, compatibility of data.

Task 2.2 (IOLR) - will provide an overview of software used for pre-processing

- This review will include all systems (coastal, shelf and ocean)

- **Task 2.2 *Evaluation of basic data pre-processing procedures* (IOLR)**

Necessary information to be acquired:

- instrument used for the monitoring

- precision of sensors

- calibration (laboratory)

- intercalibration (in situ)

MAMA OBS - WHAT TO DO

- Task 2.3 (ENEA) - will provide an assessment of the q.c protocols for the application to the Mediterranean environment

All system will be considered (coastal shelf and ocean)

Manuals and guide n. 3

Manuals and guide n. 22

Best guide and principle manual for the SOOP and XBT operations

ioc.unesco.org

www.ifremer.fr/ird/soopip/

www.bom.gov.au/bmrc/ocean/JAFOOS/review.html

THE ROLE OF XBT SAMPLING IN THE OCEAN THERMAL NETWORK (Neville R. SMITH, D.E. HARRISON, Rick BAILEY, Oscar ALVES, Thierry DELCROIX, Kimio HANAWA, Bob KEELEY, Gary MEYERS, Bob MOLINARI and Dean ROEMMICH)

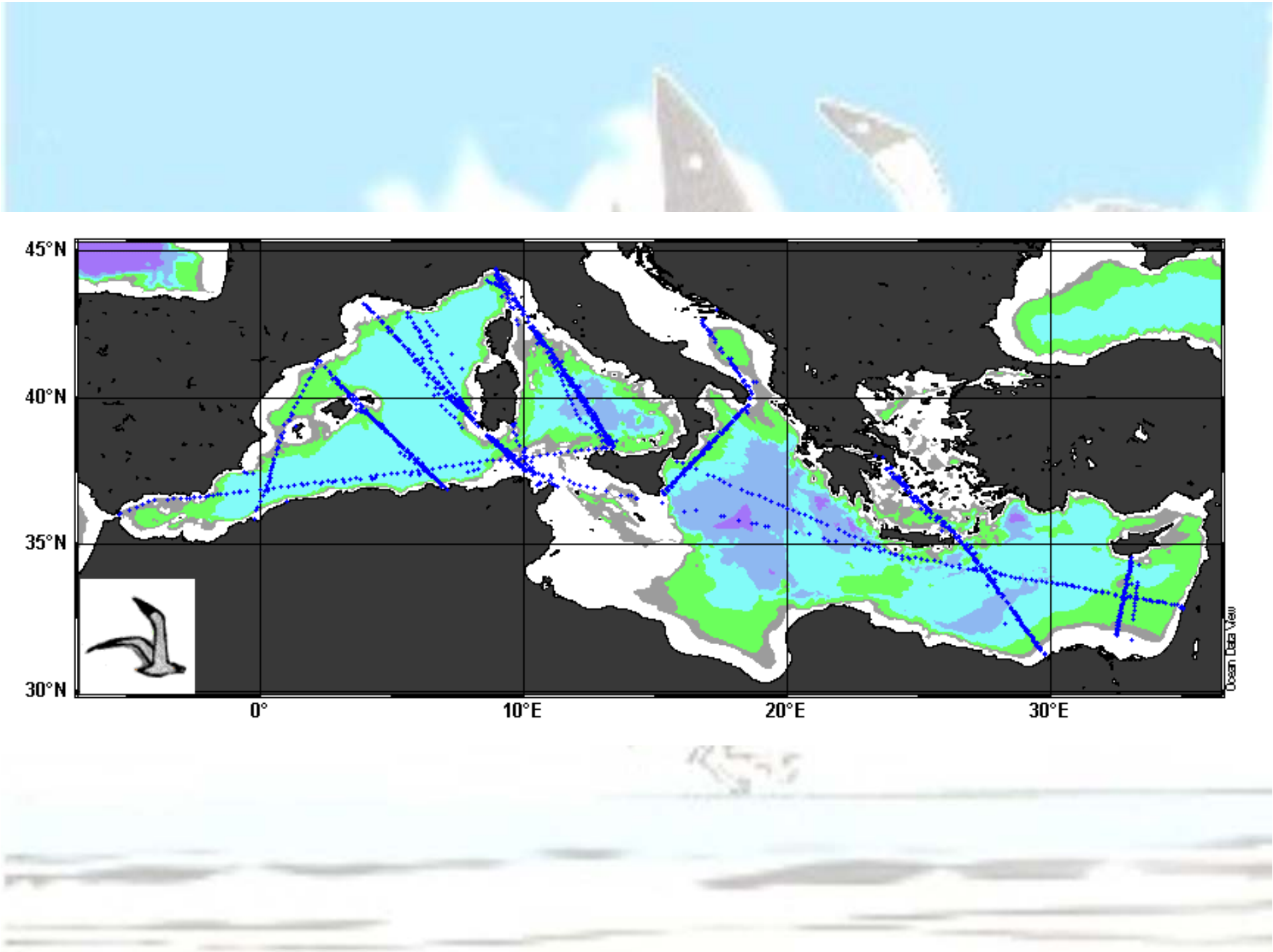
ioc.unesco.org/goos/COOP.htm

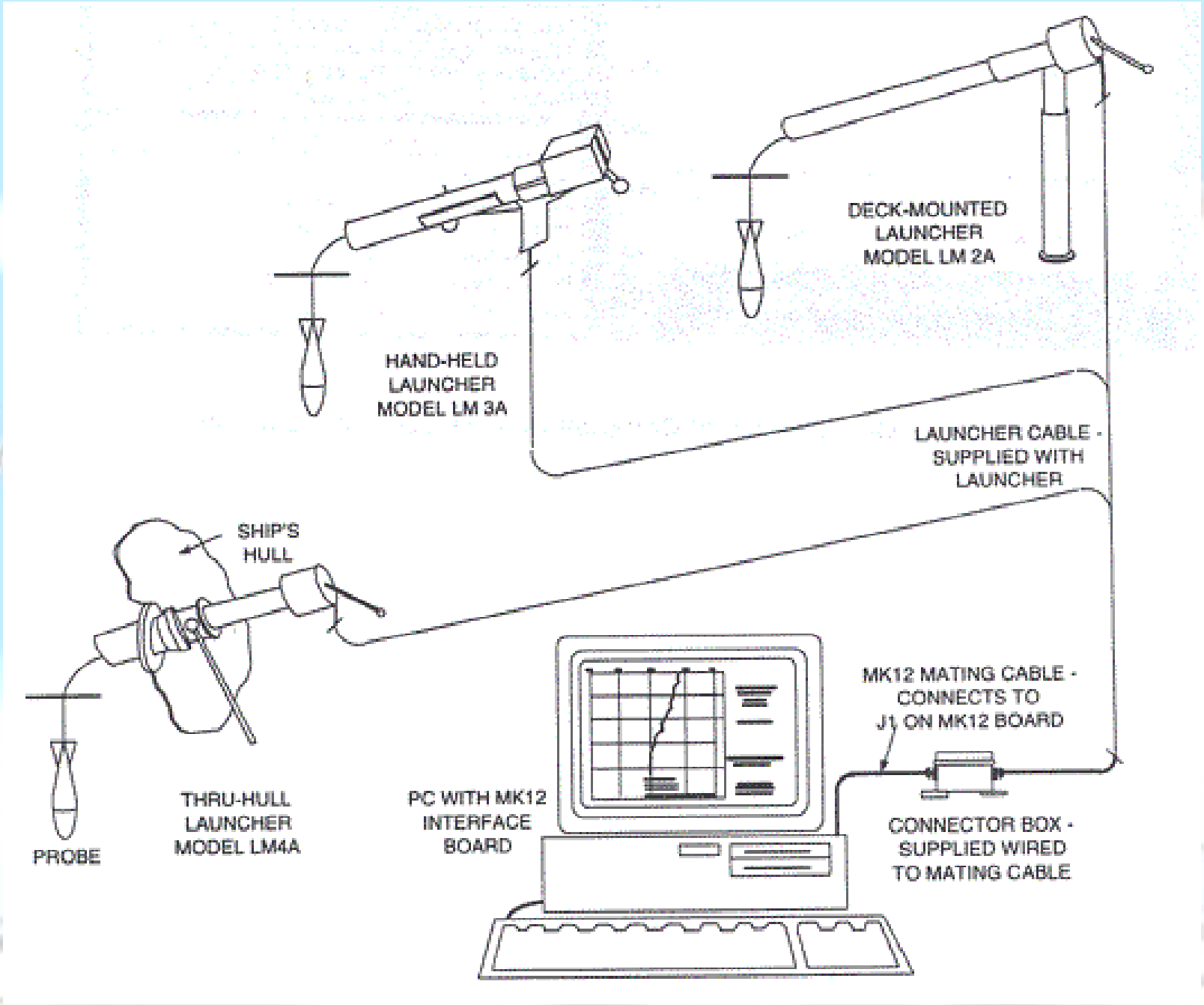
ioc.unesco.org/goos/oopc.htm

MAMA OBS - WHAT TO DO

- Task 2.4 (ENEA, S2AM, IOI, experts) - will provide a design of an integrated coastal - ocean monitoring system

(based on existing technologies, and defining alternative/new hardware/software).


45°N
40°N
35°N
30°N
0°
10°E
20°E
30°E
Ocean Data View


DECK-MOUNTED
LAUNCHER
MODEL LM 2A
HAND-HELD
LAUNCHER
MODEL LM 3A
LAUNCHER CABLE -
SUPPLIED WITH
LAUNCHER
SHIP'S
HULL
MK12 MATING CABLE -
CONNECTS TO
J1 ON MK12 BOARD
PROBE
THRU-HULL
LAUNCHER
MODEL LM4A
PC WITH MK12
INTERFACE
BOARD
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SUPPLIED WIRED
TO MATING CABLE


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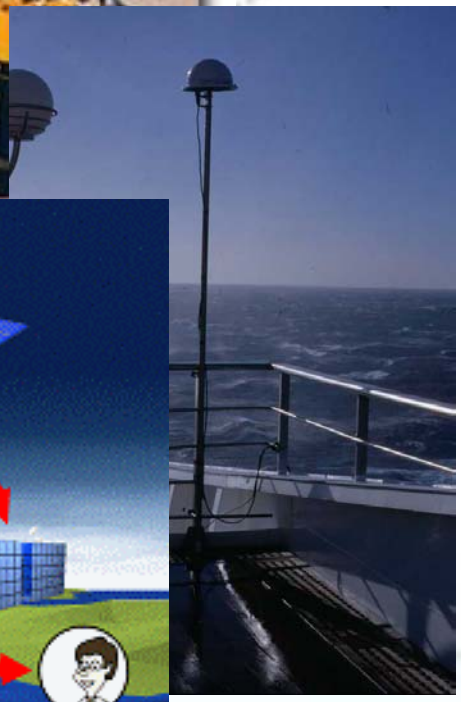

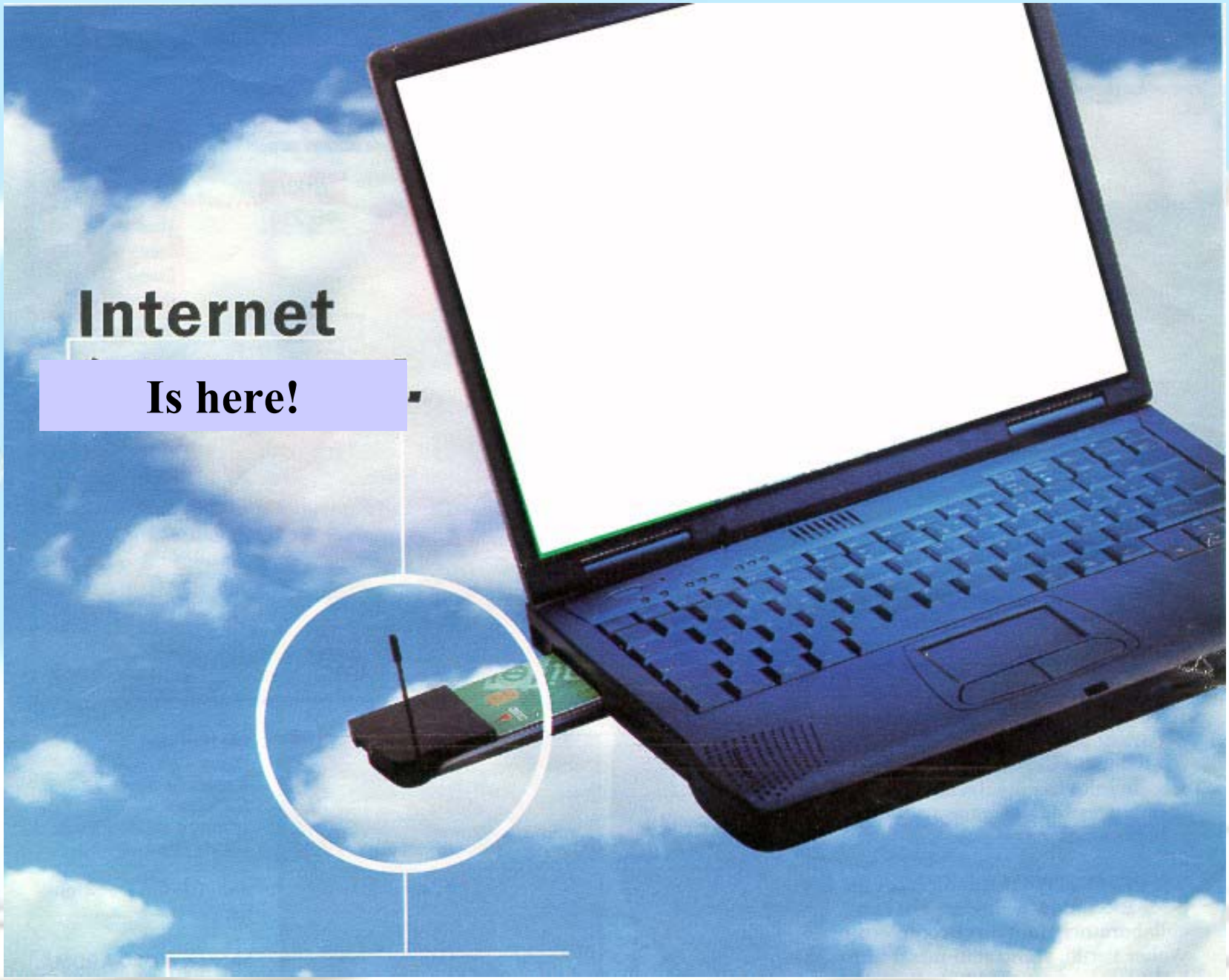
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Is here!

MAMA OBS (2.5 3.6)

- Task 2.5 NRT satellite data (Large scale)
- Biological tools for monitoring of coastal environments (coastal scale)

MAMA OBS - WHAT HAS TO BE DISCUSSED?

- Interaction of scales (we need to define the links (e.g. energy interactions) among the three major scales; coastal shelf ocean)

MAMA OBS - WHAT HAS TO BE DISCUSSED?

- Interaction among physical-chemical-biological processes (we need to define the principal components of the marine ecosystem)

May we deal with a such difficult problem or simplify our job? (e.g. few chemical parameters to be operationally collected)