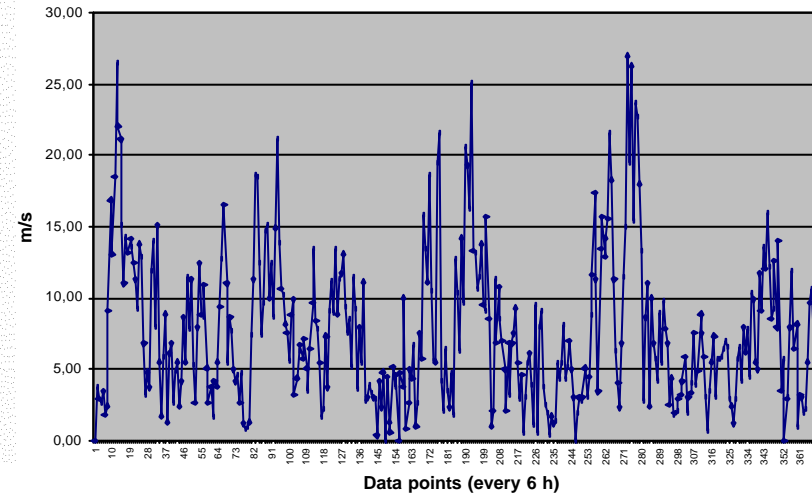
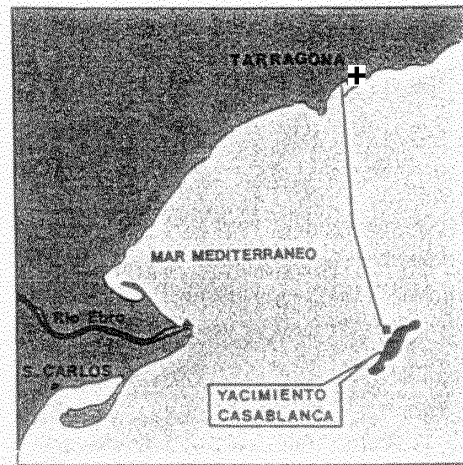
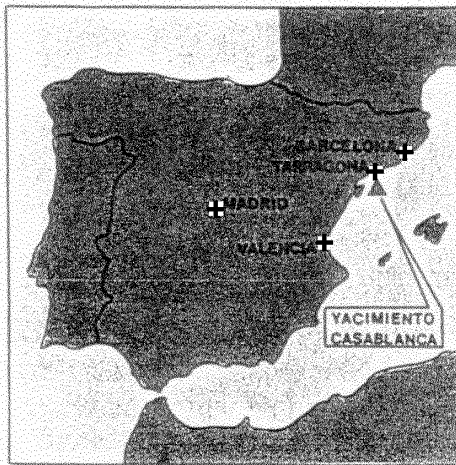




# The **W**ind and **S**alinity **E**xperiment 2000 at the REPSOL Casablanca drilling platform

## The Casablanca Platform site:

- 40 km away the Ebro river mouth in Spain
- Wind intensities as high as 90 km/h (25 m/s) are not uncommon during the months of October and November



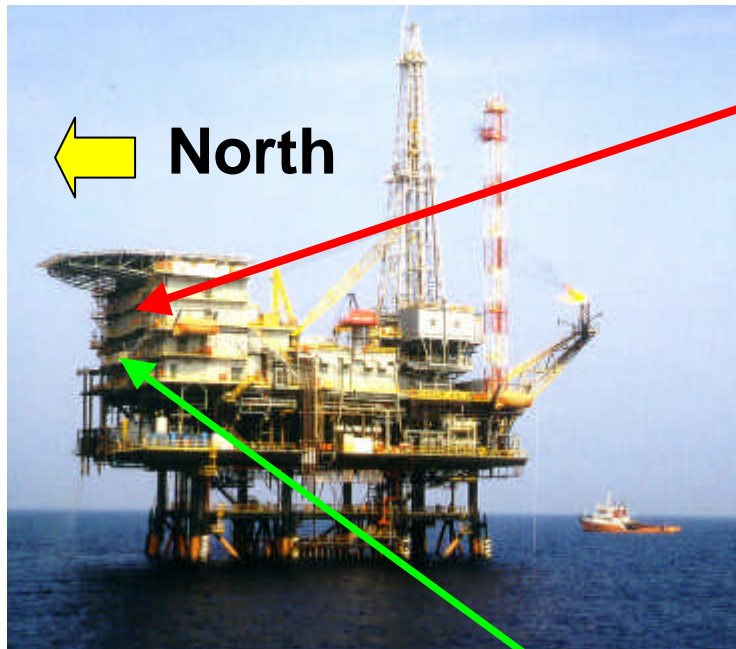
Location of the Casablanca platform

WS during Oct. - Dec. 1992

## Description of the instrumentation (i):

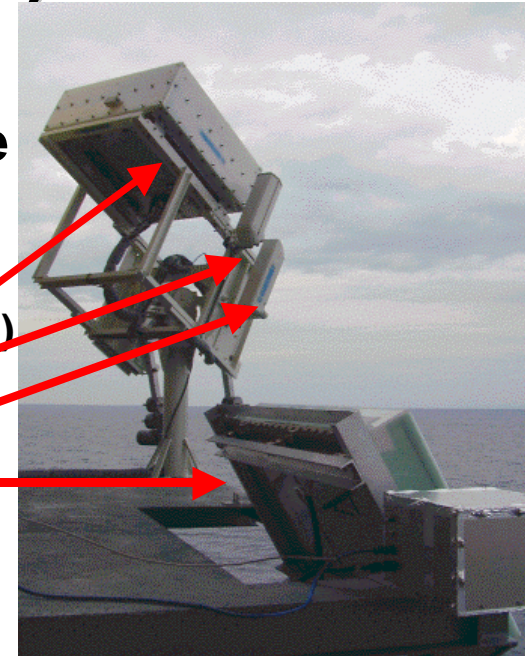
- **Two L-band radiometers** from the University of Massachusetts at Amherst ( $T_h$  and  $T_v$ ) and from the Polytechnic University of Catalonia at Barcelona (Sp) ( $T_h$ ,  $T_v$ , **U** and **V**)
- **Four oceanographic buoys** from the Institut de Ciències del Mar (Sp) and the Laboratoire d'Océanographie Dynamique et de Climatologie (Fr), that will measure **SSS, SST, WS, WD, WH, WP...**
- **Meteorological station** (UPC) that will measure **P,R, RH and RR**
- **Stereo-camera** from CEPT: 3D images of the sea surface to determine the **foam coverage** and **surface rms slopes**
- **Video images** of the antenna boresight
- **Infrared radiometer** from the University of Valencia (Sp) that will provide **SST** estimates.

# Description of the instrumentation (ii):



**Radiometers' terrace**  
(h=33 m)

- Polarim. Radiometer (UPC)
- IR radiometer (UV)
- Video Camera (UPC)
- H/V radiometer (UMass)



**Oceanographic and meteo buoys at 200 m**

- Stereo-camera (CEPT)  
(h=26 m)



## Installation of the L-band radiometers:



**LAURA radiometer**



**UMass radiometer**



## Measurement Strategy:

- **Sea state stationarity: scales  $> \sim 5$  minutes, it might be more.**
- **Three modes of measurement :**
  - 1) **Mode 1, fixed observation**: Long observations at fixed incidence and azimuth to study the time scale of the stability of the sea state and its consequences on L band emissivity.
  - 2) **Mode 2, azimuth scan**: as large as possible with the limitations of not seeing neither the platform nor the sky:  
 $0^\circ, 60^\circ, 120^\circ, 90^\circ, 180^\circ, 30^\circ, 90^\circ, 150^\circ$ .  
Every measurement is 2 minutes long.
  - 3) **Mode 3, elevation scan**:  $20^\circ, 50^\circ, 35^\circ, \text{ and } 65^\circ$ .  
Every measurement is 2 minutes long
- **Periodic calibration ~ 30 min**