



# DIRETOCRATE OF HYDROGRAPHY AND NAVIGATION

## BRAZILIAN NATIONAL REPORT TO THE 8<sup>th</sup> HCA Meeting

October 07<sup>th</sup>, 2008



## SUMMARY

**I. 2007/2008 HYDROGRAPHY**

**II. CARTOGRAPHY**

**III. COURSES**

**IV. CBC PROJECTS**

**V. OCEANOGRAPHY AND METEOROLOGY**

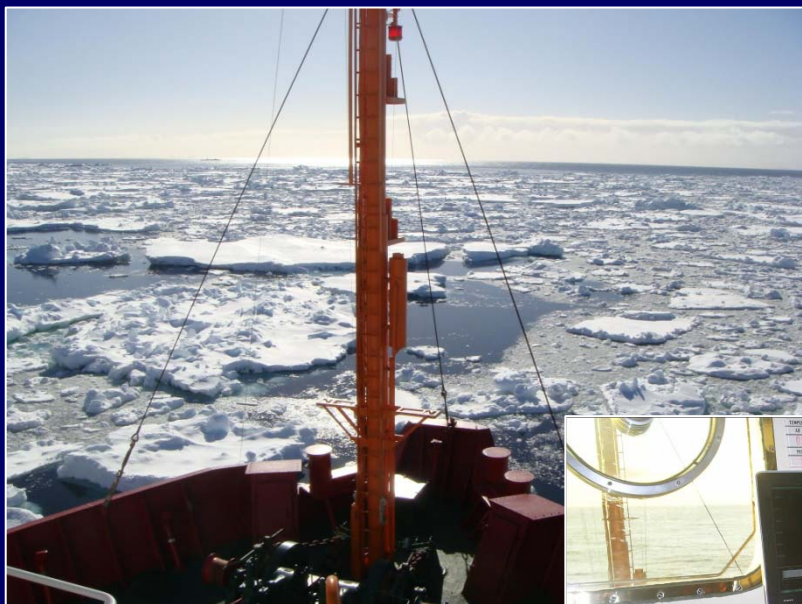
**VI. PROJECTS**



# HIDROGRAPHY ACTIVITIES

Sounded Área in 2007/2008

2666,8 km<sup>2</sup>

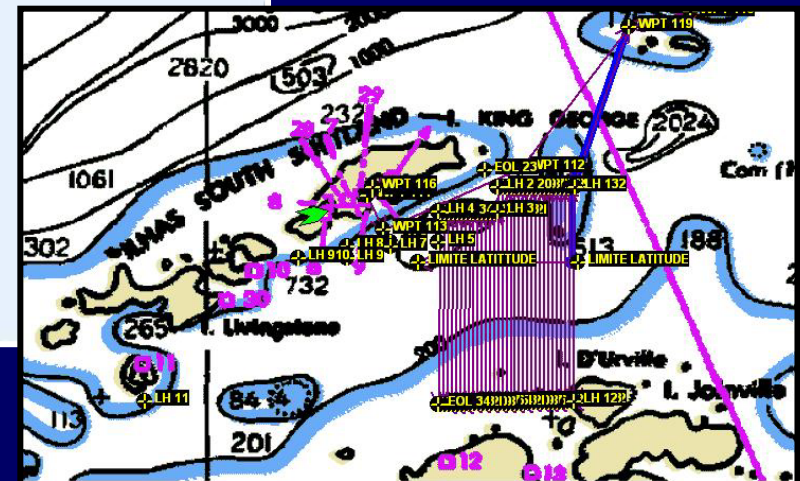
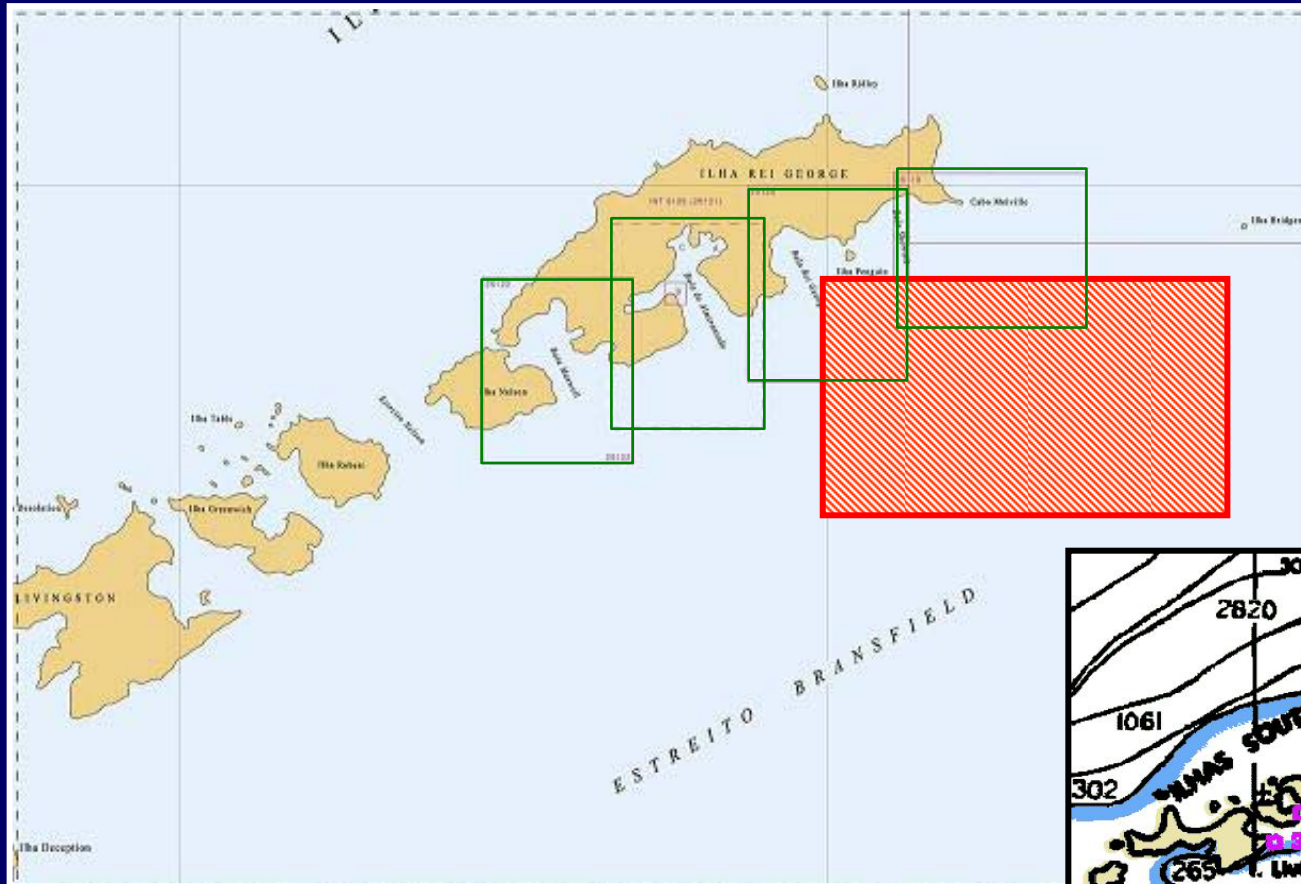






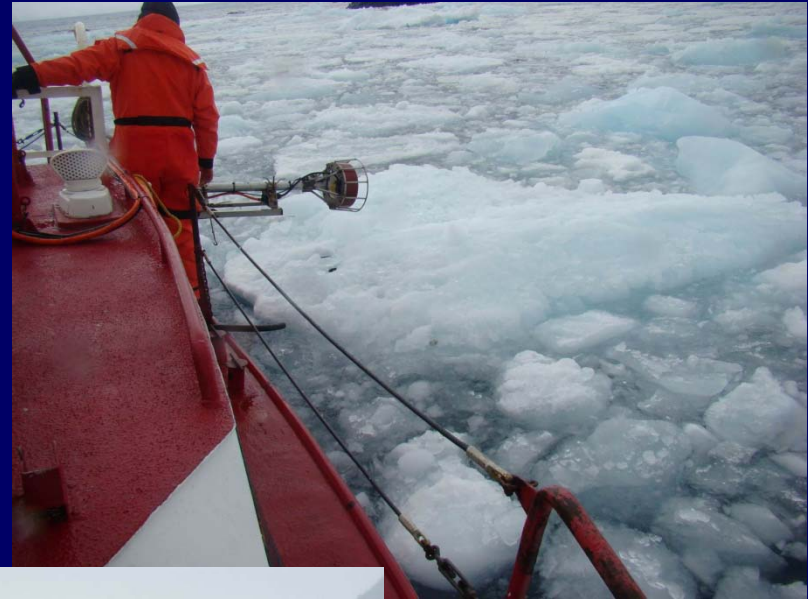
# HIDROGRAPHY ACTIVITIES

## Sounding Area – Nautical Chart 25210





# HIDROGRAPHY ACTIVITIES







# HIDROGRAPHY ACTIVITIES





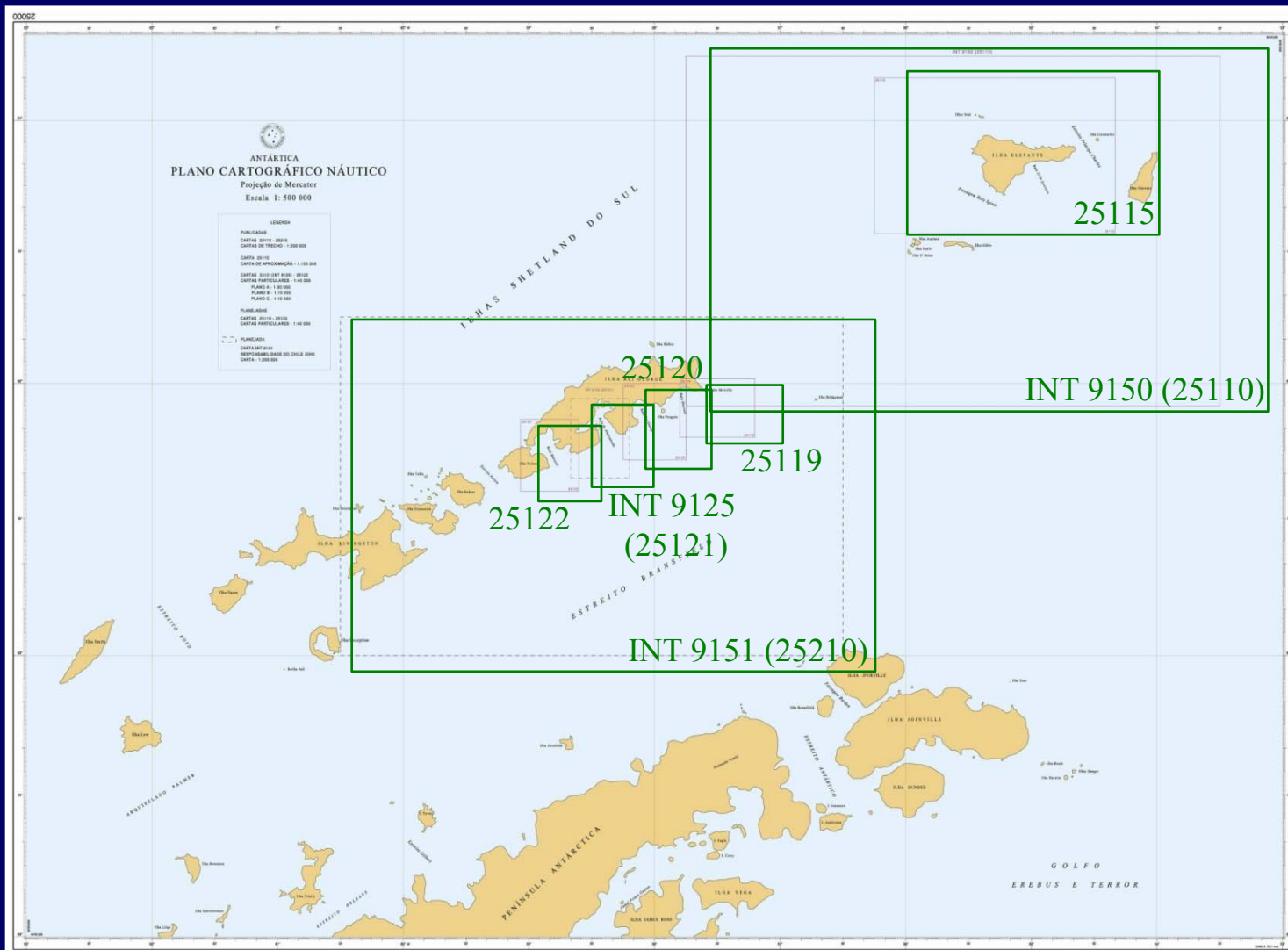
# HIDROGRAPHY ACTIVITIES





# CARTOGRAPHY

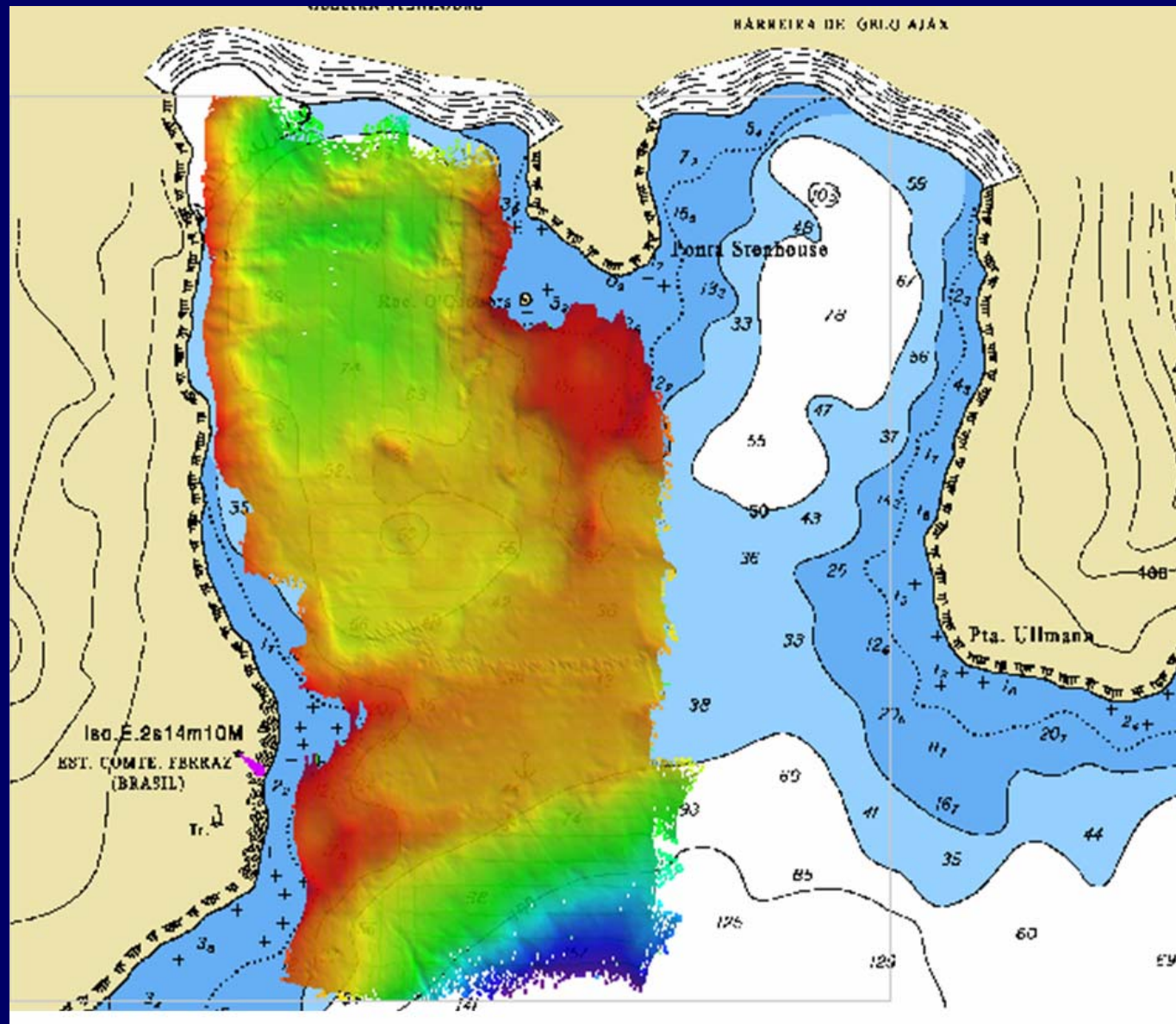
## Antarctic Cartographic Plan







# CARTOGRAPHY





## SUMMARY

### III. COURSES

➤ Hydrography (Cat. A)

➤ Hydrography (Cat B)

➤ Specific lectures / trainings on :

hydrography, cartography, tides, survey processing,  
meteorology.



## SUMMARY

### **IV. CBC PROJECTS**

- ENC & ECDIS Seminar – Nov 2008
- Workshop on multibeam – Nov 2008;
- Cartographic production update – 2009;
- Multibeam course – 2009;
- Workshop on shallow water hydrography – 2010;
- Workshop on geospatial data processing and management – 2011.

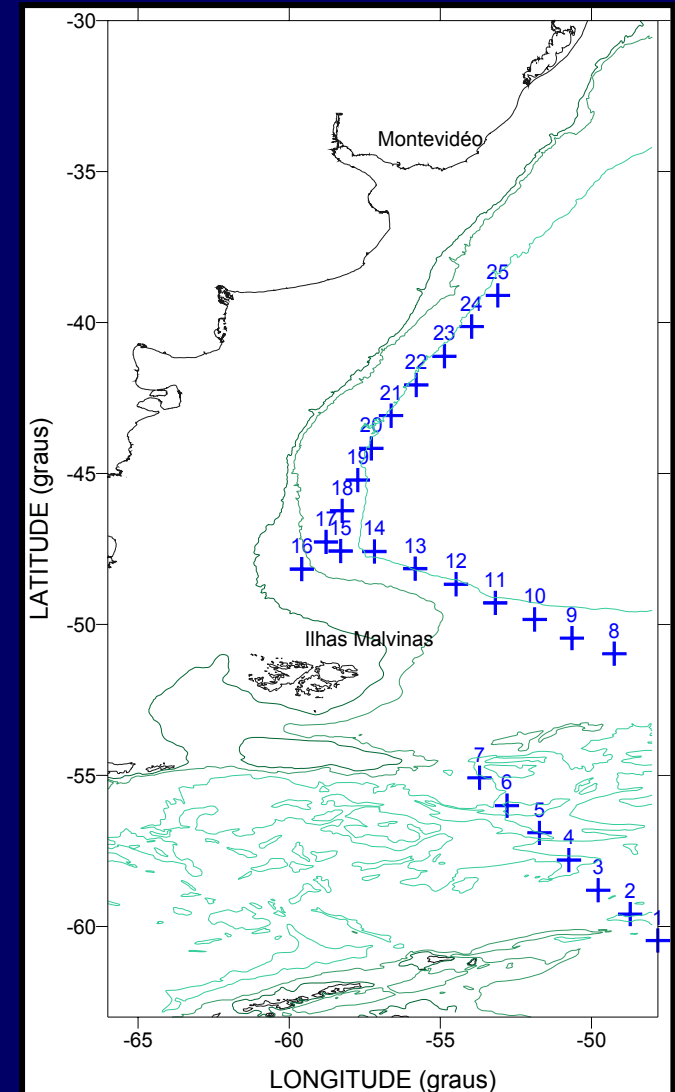




# OCEANOGRAPHY

## Oceanographic Stations

- 17 CTD/Rosette Stations;
- 84 XBT;
- Secchi disc;
- Bongo net;
- Oxygen analysis;
- Filters for Nutrients and Chlorophylls;
- Launch of 04 derived bouys.





# OCEANOGRAPHY

**CTD/ Rosette Station**



**Bongo Net**



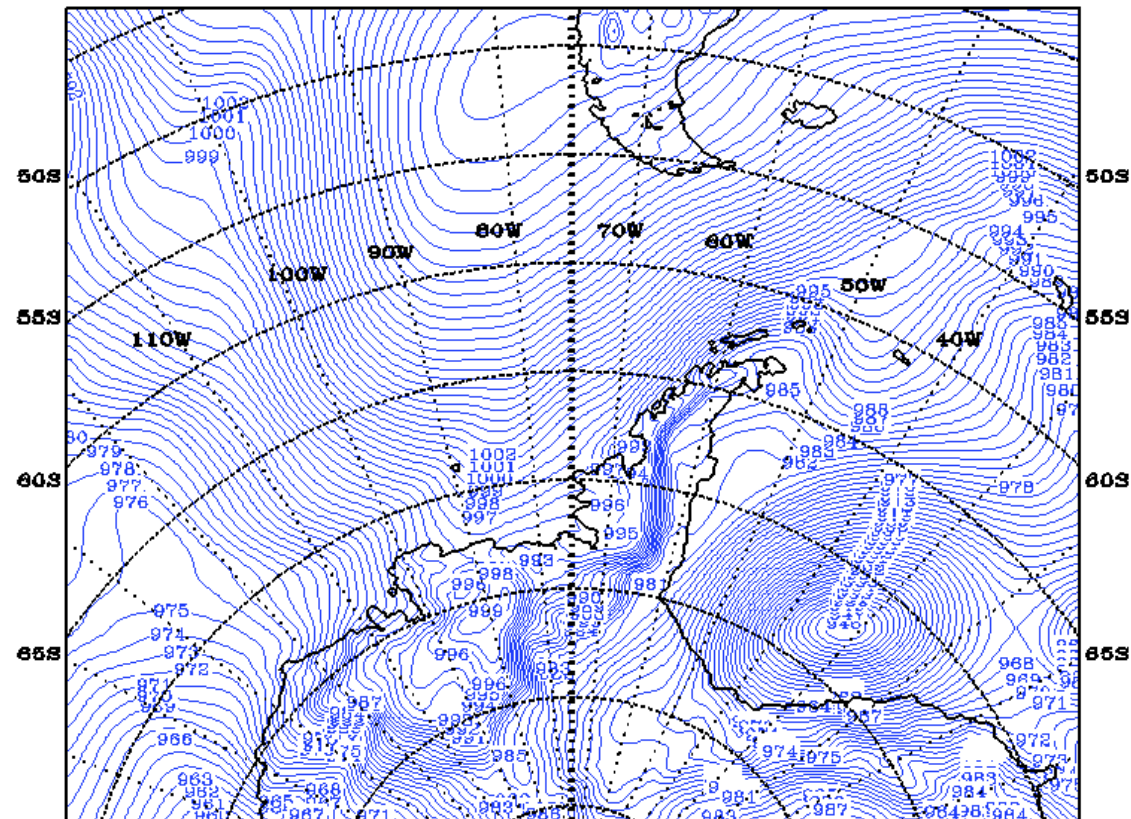
**Derived Buoy**



# Atmospheric and Waves Forecast

✧ Atmosphere  
Waves  
78 hours

HRM/CHM-Press/Prec. Acum.(03h)  
00Z01JUN2008(Dom) Analise

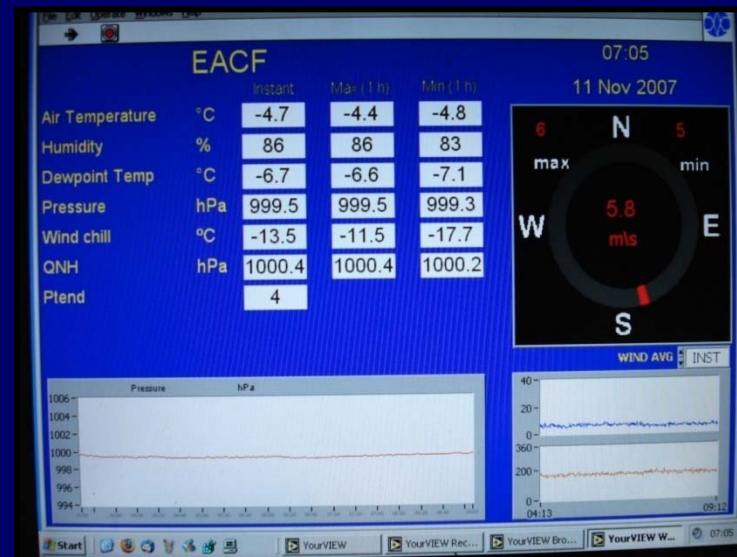






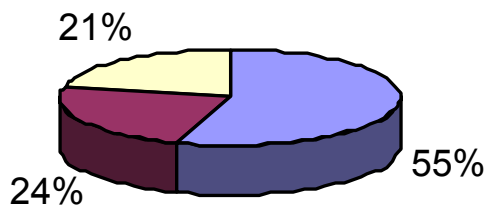
# METEOROLOGY

## Antarctic Forecast (EACF e NApOc Ary Rongel)



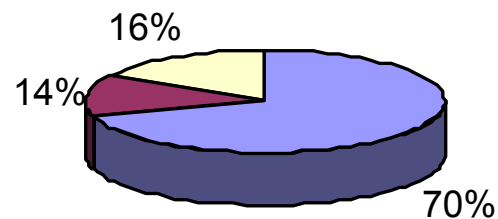
Automatic Meteorological Station at EACF

24 HOURS FORECAST CHM x OBS



■ CORRECT ■ ACCEPTABLE ■ UNCORRECT

FORECAST EACF x OBS



■ CORRECT ■ ACCEPTABLE ■ UNCORRECT



## SUMMARY

### VI. PROJECTS

- **Antarctic Hydrographic Plan**
- **Polar Ship “Admiral Maximiliano”**



# NPo “Almirante Maximiano” (H-41)



- **Multibeam Echosounder**
- **Sub-bottom Profiler**
- **Side Scan Sonar**
- **ADCP**
- **CTDO**
- **Dry and Wet Labs**
- **Geological Winch**





Thank You

