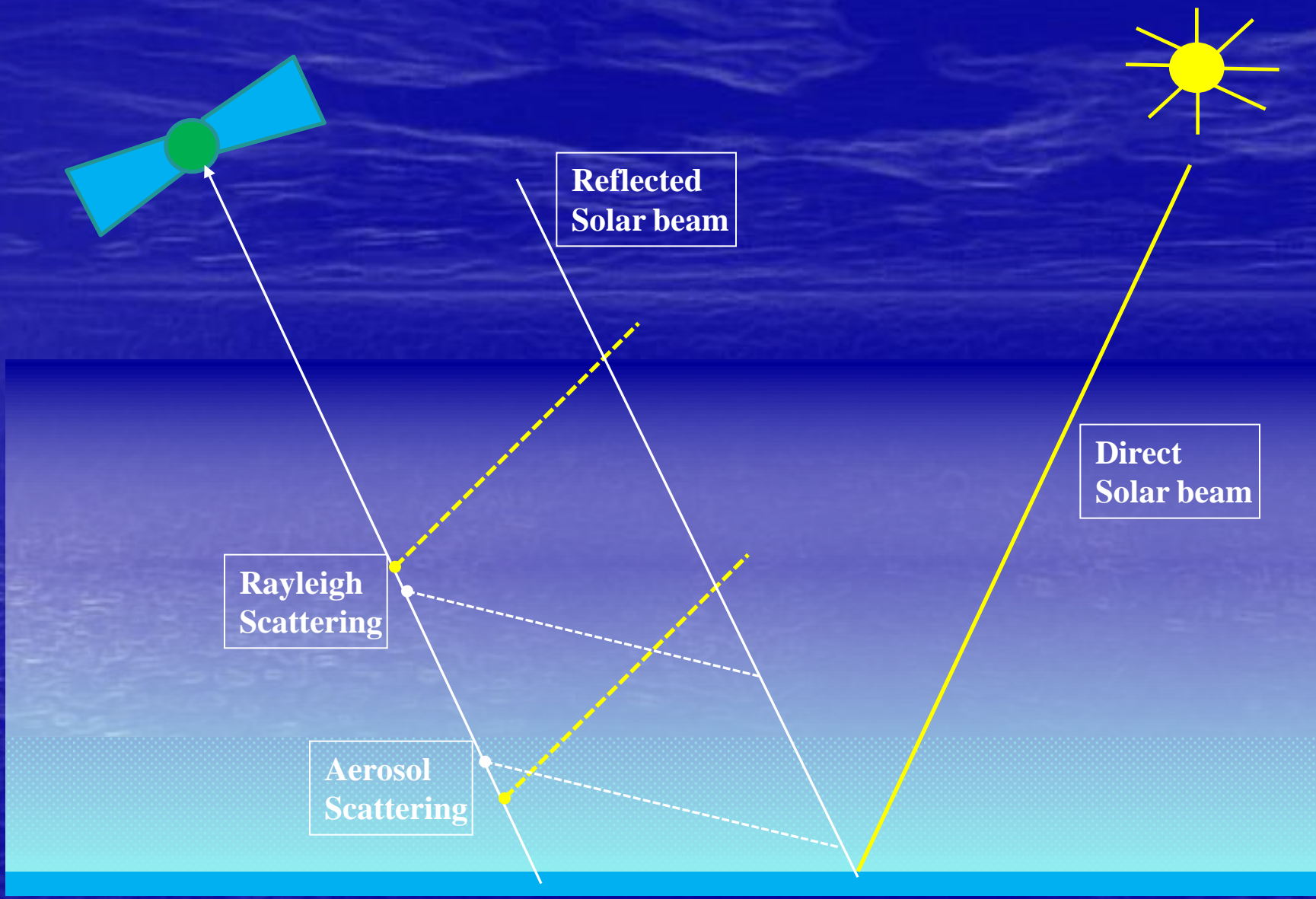


# Performance of ICOL at the Sagres site, Portugal.

Gerald Moore  
Sonia Cristina  
John Icely





20km

# Advantages of Sagres Site - ICOL

## Important site to get Correct

### Always Case 1

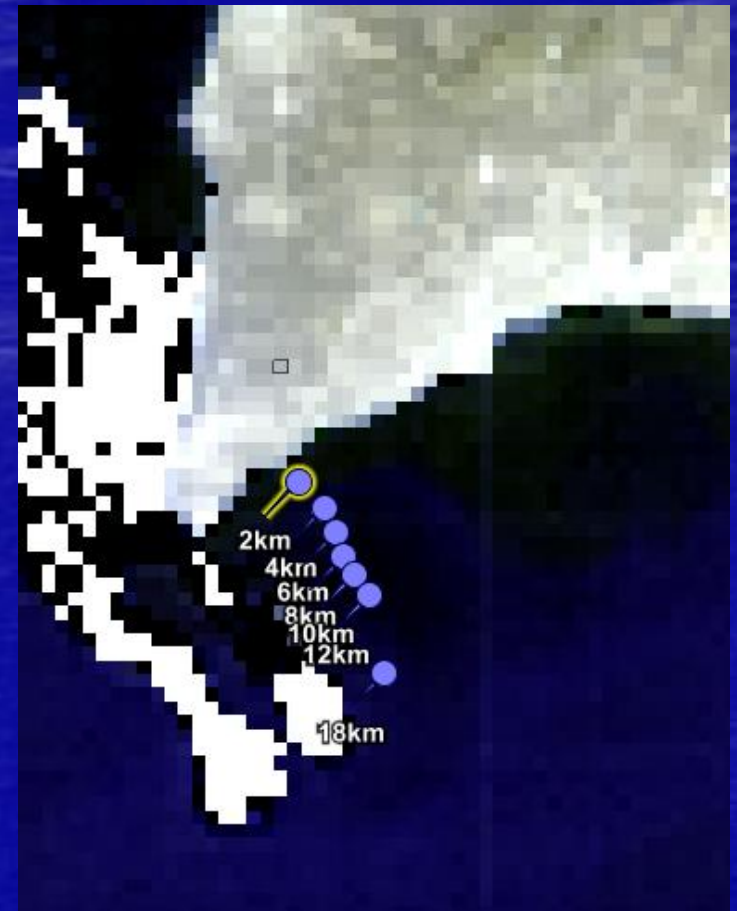
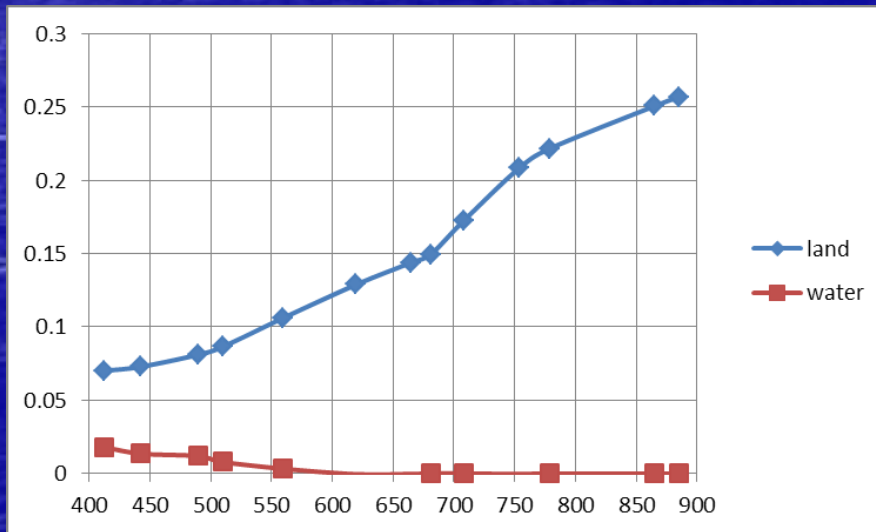
Contrasting Conditions:

Upwelling – Chl 1.0 >> 5.0

Otherwise – Chl <1.0

Nearby CIMEL

Fairly consistent vegetation



## **Performance Assessment**

### **Two trials – low chlorophyll – non upwelling**

#### **1) 11-Nov-2008**

- **3 Stations at 2km, 10km and 18km from shore - nominal.**
- **FR Imagery – (Beam 4.8)**
- **CDOM, Chl, YSBPA, PABS**
- **No Aerosol Measurement**
- **TACCS Manufacturers Cal – Single wavelength K-Chain**

#### **2) 14-Oct-2011 – experiment - preliminary assessment**

- **6 Stations 2km, 4km,6km,8km,10km,12km, 18km from shore.**
- **RR Imagery – (Beam 4.9) Many thanks to Jan Jackson at ARGANS**
- **No CDOM etc.**
- **Aerosol from CIMEL, Microtops**
- **TACCS ARC2010 Cal – Four wavelength K-Chain**

**Identical processing 3<sup>rd</sup> reprocessing Cal.**

1 – 11-Nov-2008

### Algal 1

invalid retrievals  
are grey

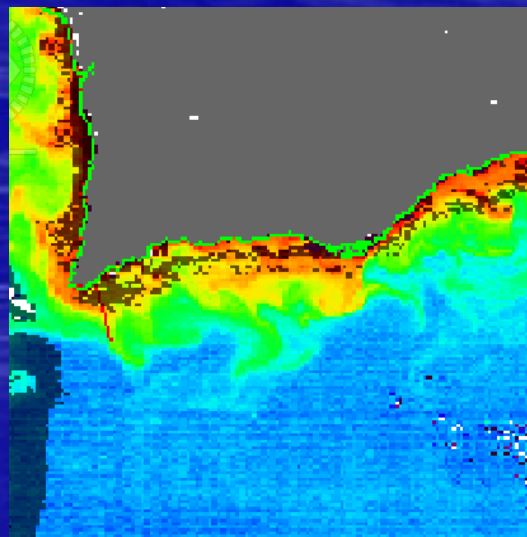
NASA colour palette

$\rho_w(510)$

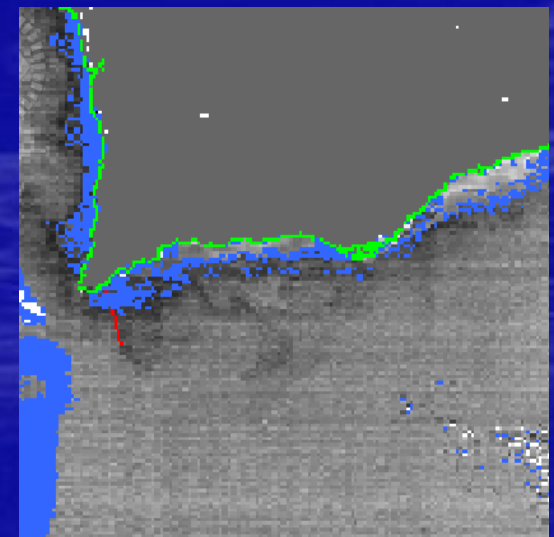
invalid reflectance  
is blue

data is scaled 0 to 0.014

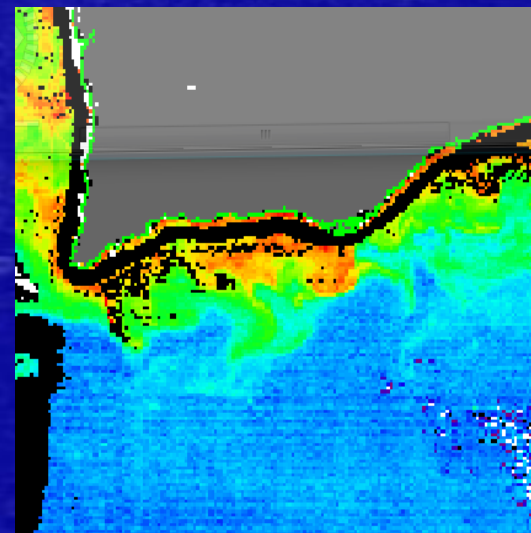
$\rho_w(510)$  chosen since  
it is meant to be a  
quasi constant for case 1



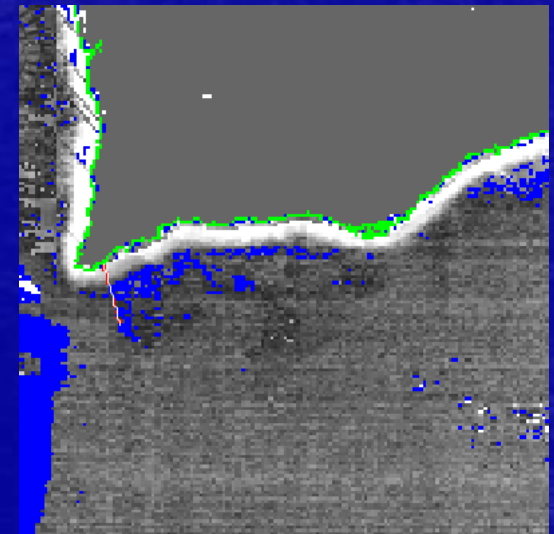
Algal1 – non-ICOL



$\rho_w(510)$  – non-ICOL

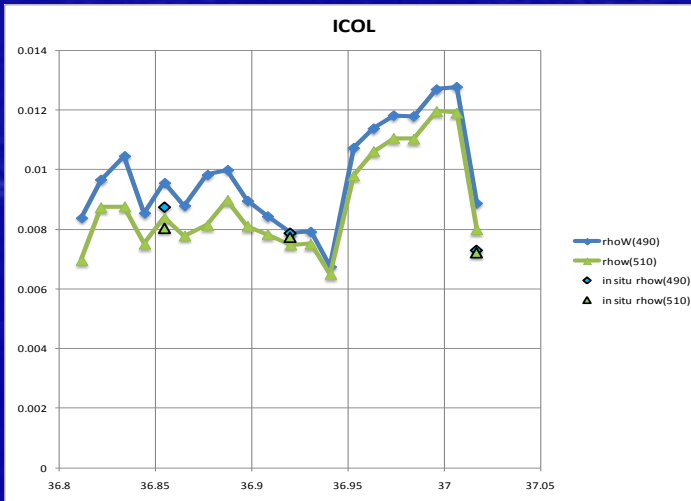
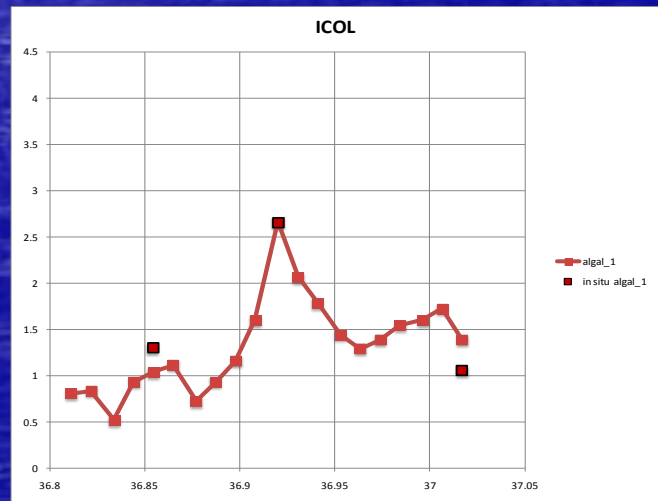
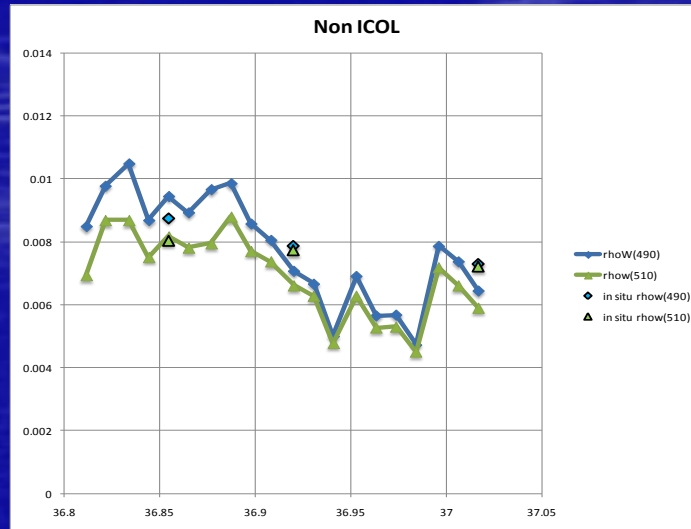
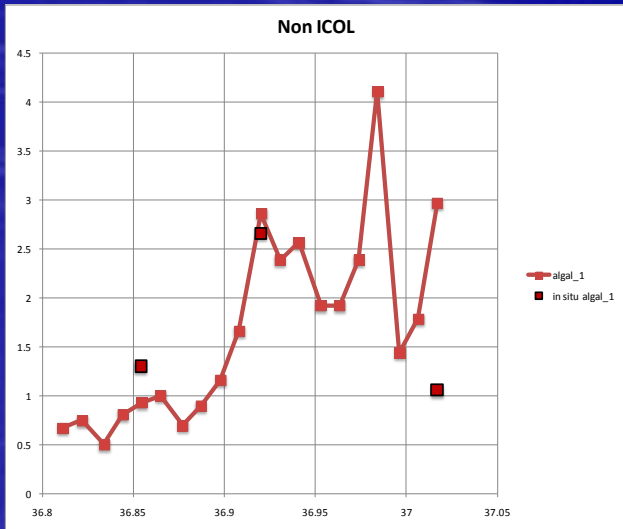


Algal1 – ICOLAE Model



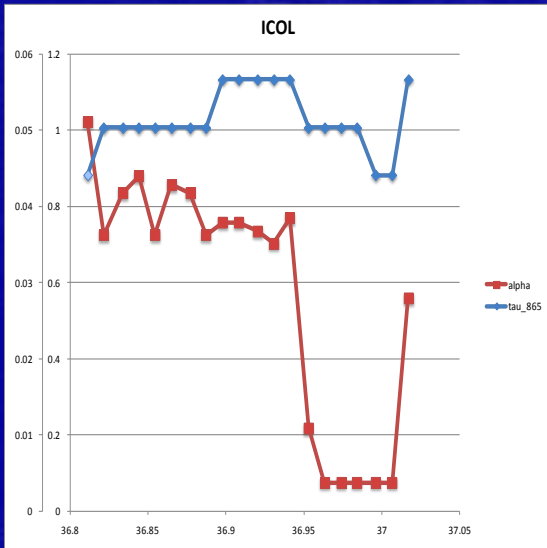
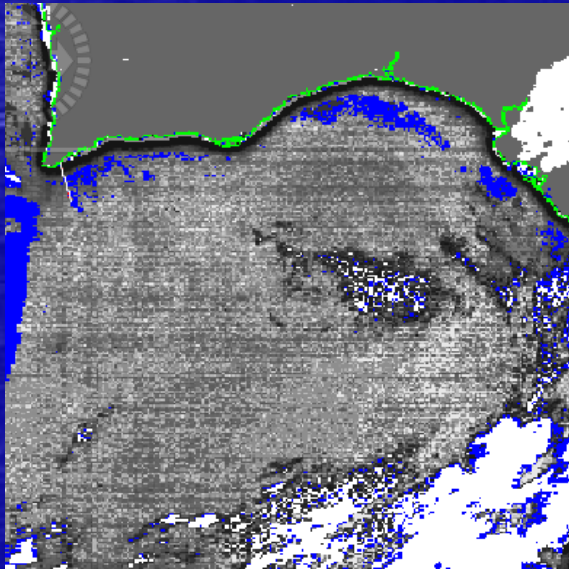
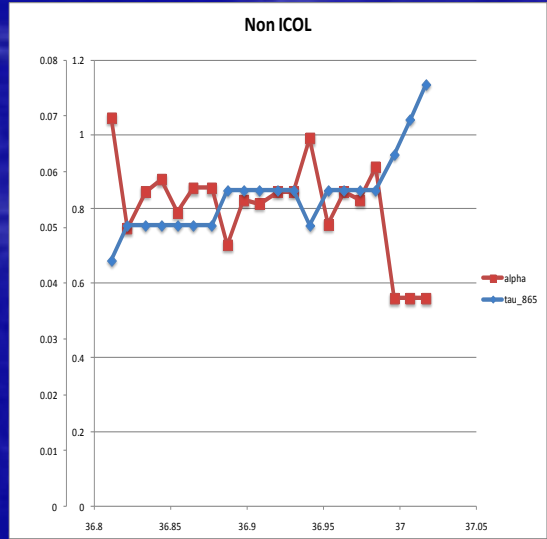
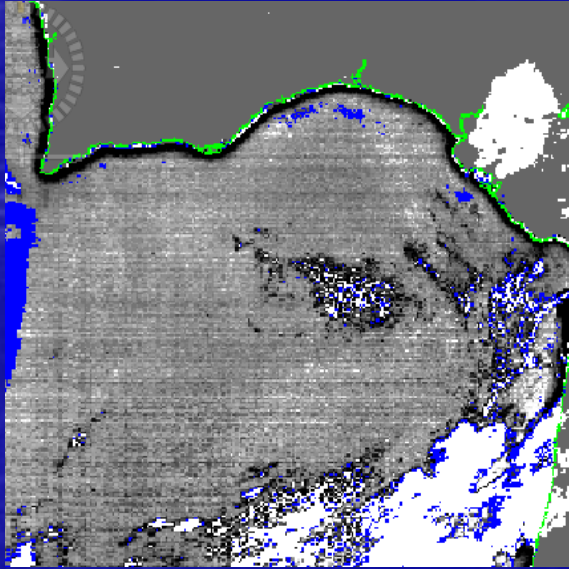
$\rho_w(510)$  – ICOLAE Model

1 – 11-Nov-2008



1 – 11-Nov-2008

Alpha / AOT  
Again Banding  
Near Coast



Gerald Moore  
MVT, Lisbon, Oct 2011 (7/12)

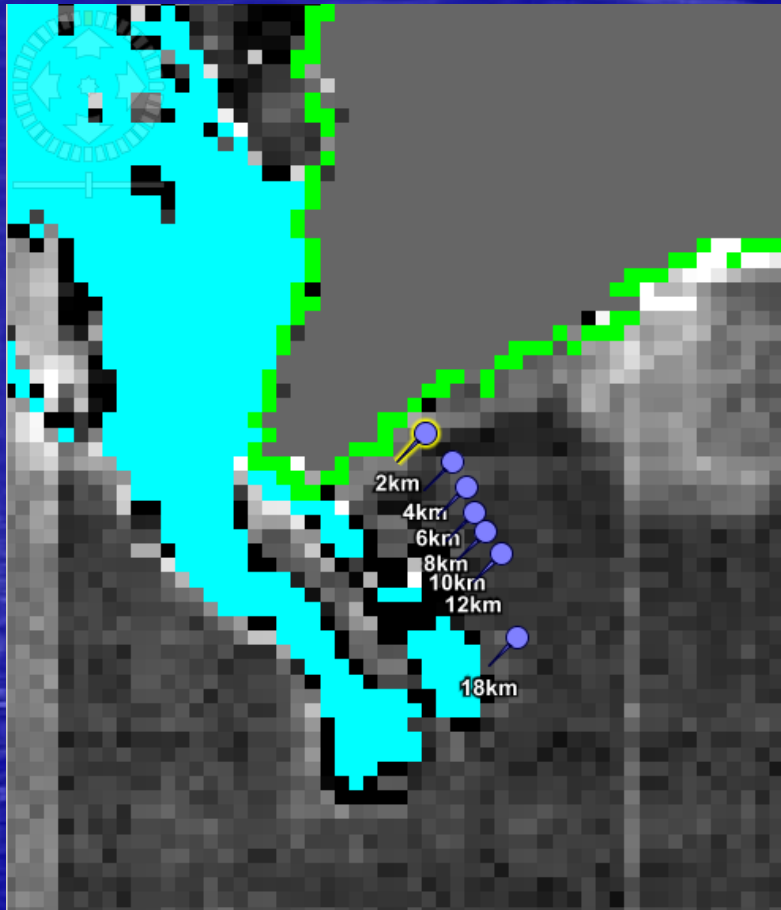
2 – 14-Oct-2011

Gerald Moore  
MVT, Lisbon, Oct 2011 (8/12)

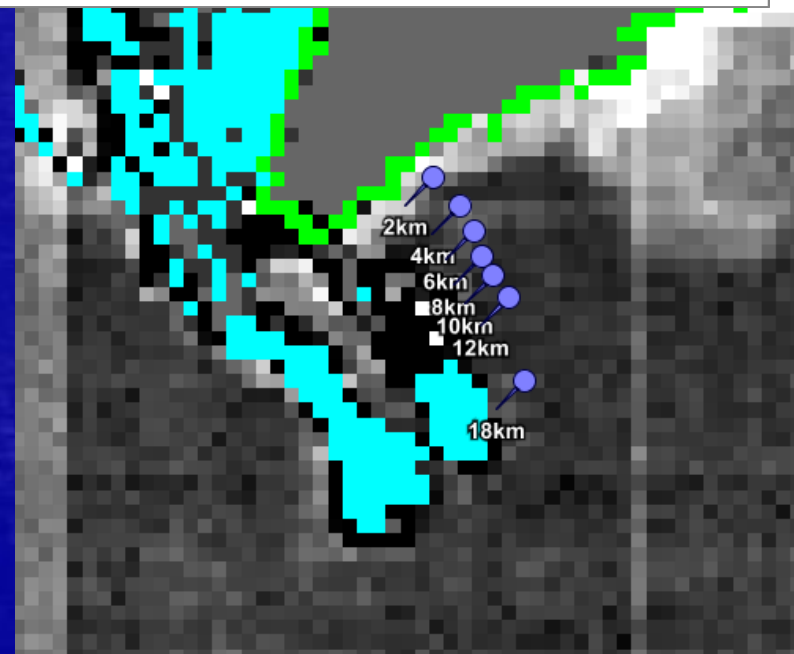
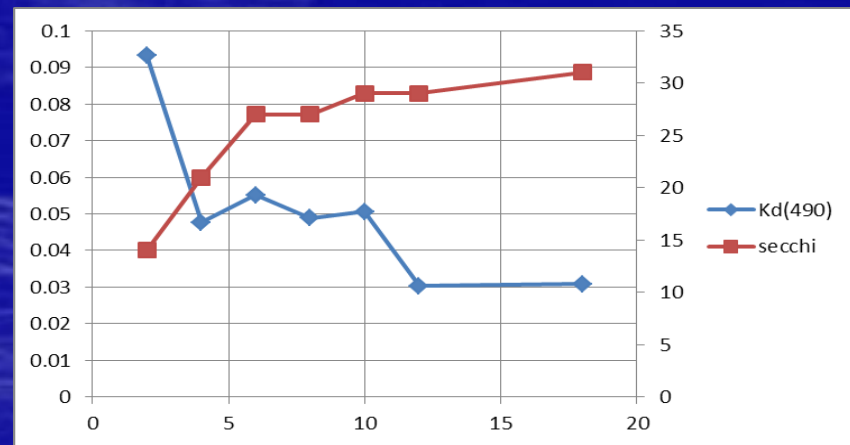
Bio Optika



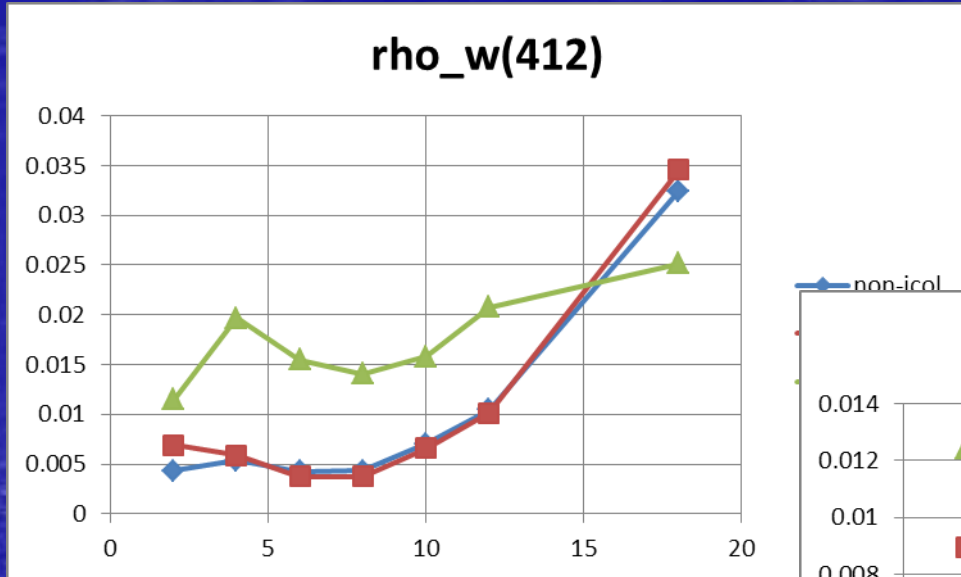
2 – 14-Oct-2011



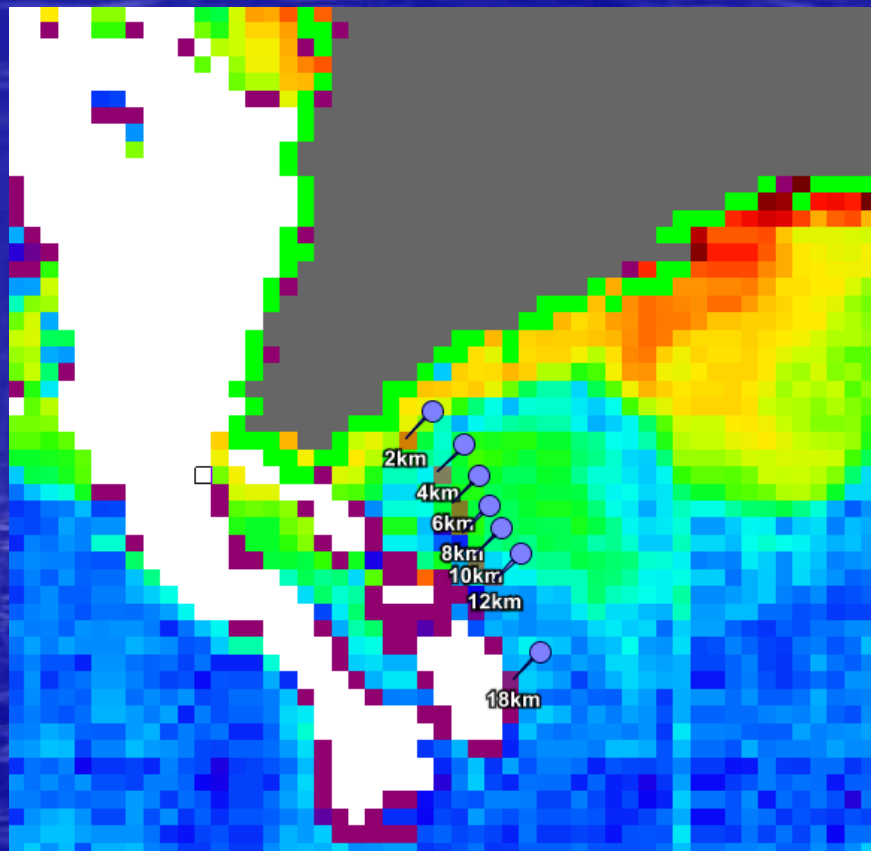
Rw(560)



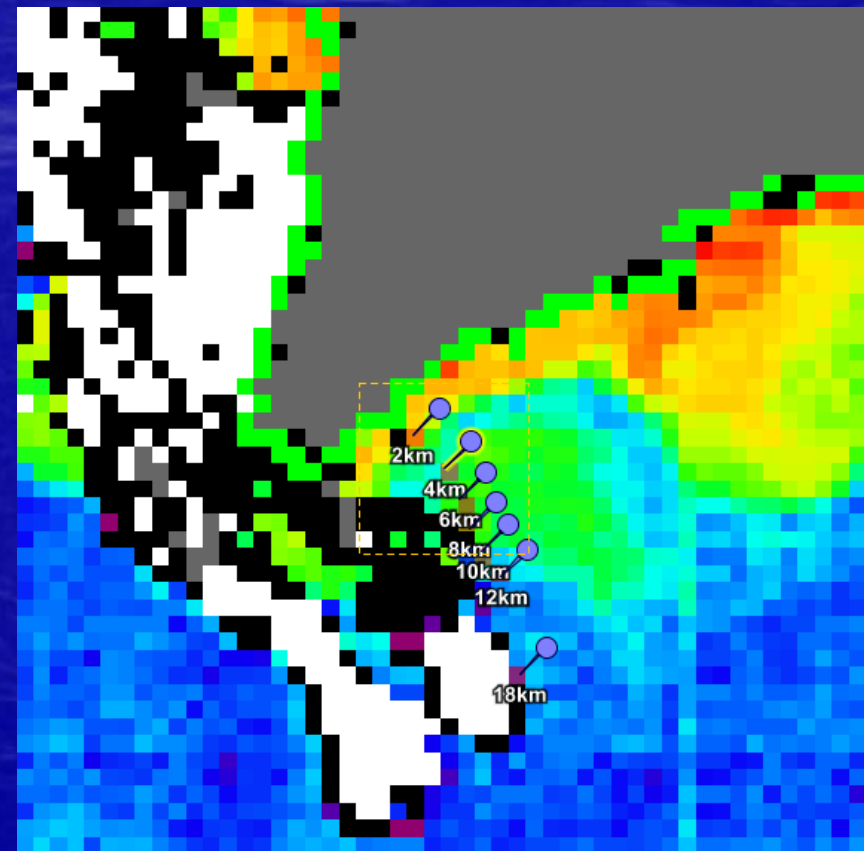
Rw(560) - ICOL



Algal1



Algal1 ICOL

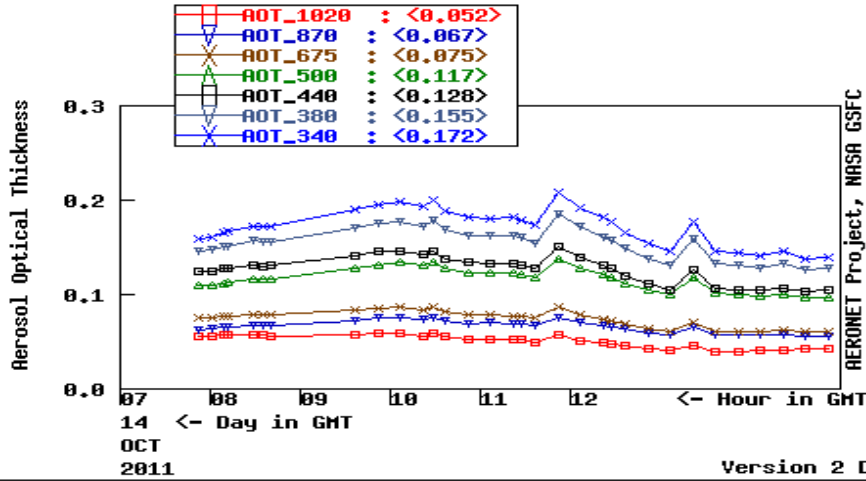


Standard NASA palette – stretched 0..5.0 mg.m<sup>-3</sup>.

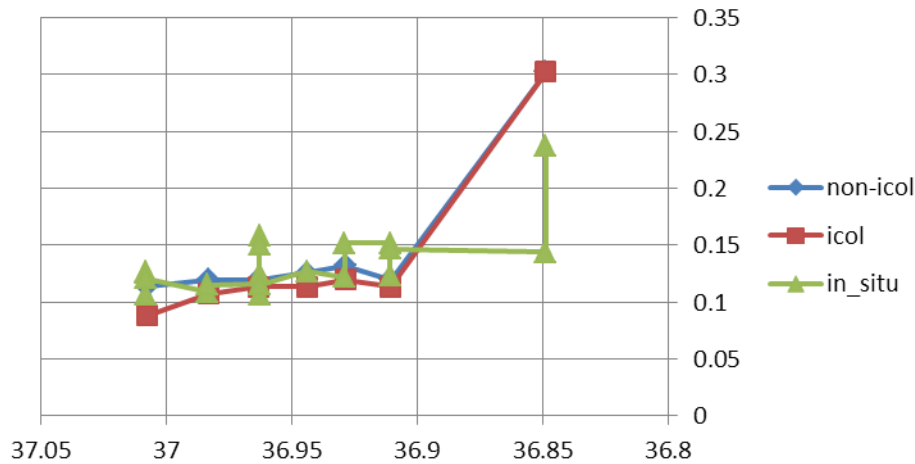
2 – 14-Oct-2011

Level 1.0 data from OCT 14 of 2011

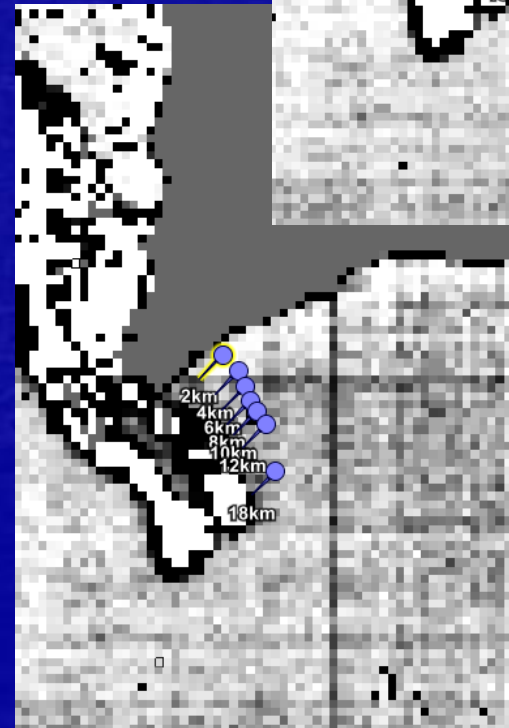
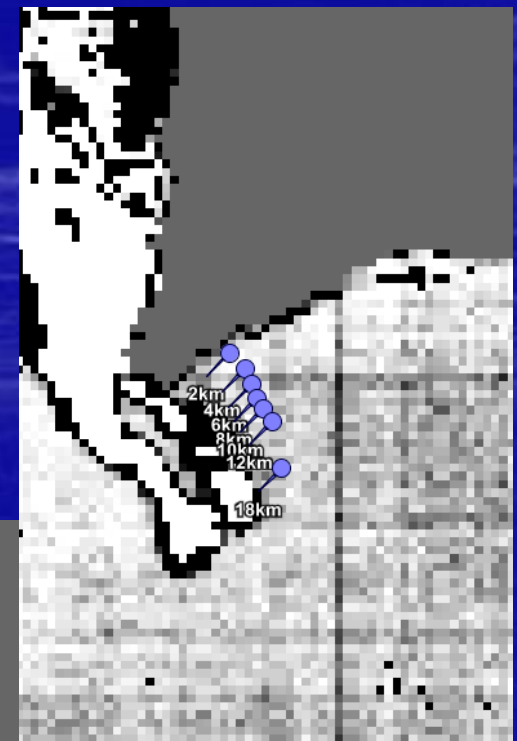
SAGRES , N 37°02'52", W 08°52'26", Alt 26 m,  
 PI : John\_Icely, john.icely@gmail.com  
 Level 1.0 AOT; Data from 14 OCT 2011



### AOT(865)



Non -ICOL



ICOL

Gerald Moore  
 MVT, Lisbon, Oct 2011 (12/15)

Bio Optika

## Conclusions

**We can get the data for validation but.**

**V2.5 – Seems to over correct – does not run full orbit**

**V2.7.4 – Seems to under-correct – runs full orbit.**

**Comments ....**