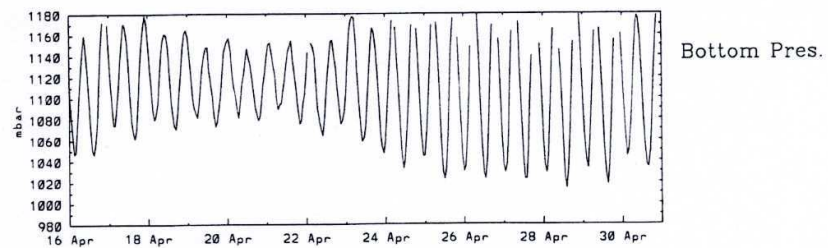
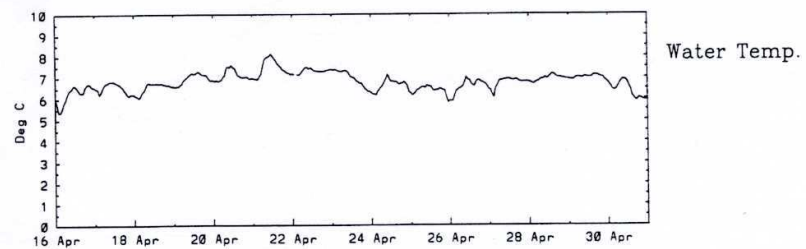
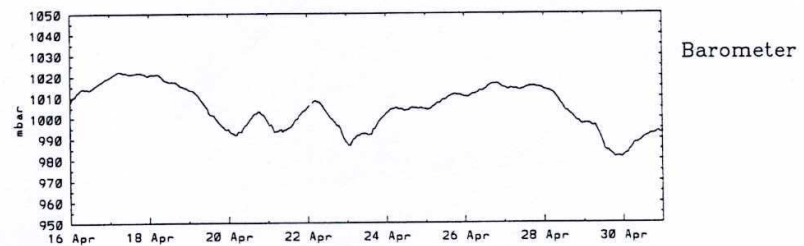


ROSAME sea level network

Philippe Téchiné

KERGUELEN ARGOS



Calculation of the water density (UNESCO formula)

$$\text{Salinity} = 35 \text{ PSU}$$

$$p0 = A + B * T + C * T^2 + D * \text{Salinity}$$

$$a1 = E + F * T + G * T^2 + (H + I * T) * \text{Salinity}$$

$$a0 = J$$

$$\text{rho} = p0 / (a1 + a0 * p0)$$

Calculation of the sea level

$$g = 9.78049 \text{ m / s}^2$$

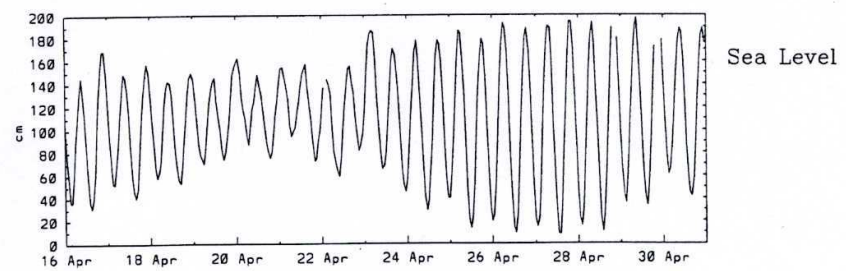
$$h = 10 * (P_{\text{bottom}} - P_{\text{baro}}) / (\text{rho} * g)$$

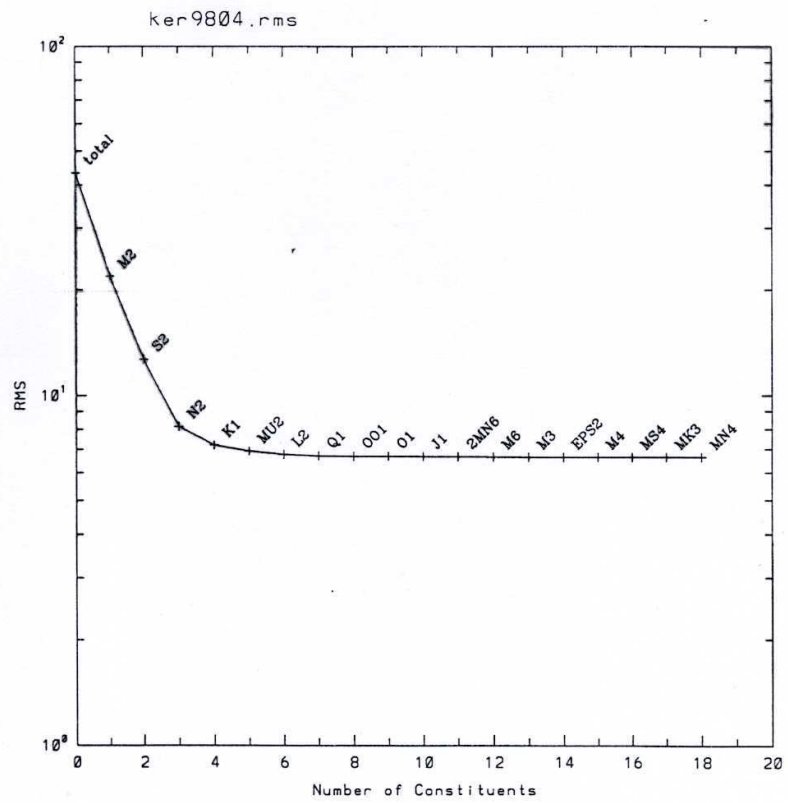
h in cm

rho in kg / l

g in m / s²

KERGUELEN ARGOS





ROSAME project

Station	Hawaii code	Position of the station	Data measured	Data calculated	Time step	Dates of measurements	Actual state
Kerguelen	180	70° 13.2' Est 49° 20.7' Sud	Bottom pressure Water temp. Baro. Pressure	Sea level	1 hour	From 05/04/93 to 30/04/98	Station in operation
Saint-Paul	179	77° 32.3' Est 38° 42.7' Sud	Bottom pressure Water temp. Baro. Pressure	Sea level	1 hour	From 25/10/94 to 30/04/98	Station in operation
Crozet	178	51° 52.2' Est 46° 25.5' Sud	Bottom pressure Water temp. Baro. Pressure	Sea level	1 hour	From 18/11/95 to 18/02/97	Station in operation
Dumont d'Urville	Not yet allocated	140° 0.61' Est 66° 39.72' Sud	Bottom pressure Water temp. Baro. Pressure	Sea level	½ hour	From 28/02/97 to 30/04/98	Station on the way of validation