FICHE META_INFORMATION_PARAMETRES

(à remplir par le responsable du paramètre)

Nom du DATASET / Data SET NAME

Data set Name (list of the measured parameters):

The **Self Contained Autonomous MicroProfiler (SCAMP)** is a portable instrument designed to measure small scale (order 1mm) absolute values and fluctuations of temperature, down to 100m depth. The data can be used to infer the levels of dissipation of turbulent kinetic energy, in-situ diffusive fluxes of heat, salt, nutrients or other quantities, and the microstructure behaviour of these parameters.

Measured parameters:

- temperature
- temperature gradient

Inferred parameters:

- rate of dissipation of turbulent kinetic energy
- diapycnal diffusivity Kz - can be used to calculate vertical diffusive fluxes of a tracer such as nutrients (flux=Kz times the vertical gradient of the respective quantity)

PROJET-ETUDE / *PROJECT TITLE*

Campaign NAME : GreenEdge – AMUNDSEN – 2016 *LEG :* 1a,b

Date begin : 3rd June 2016

Date end :

Chief Scientist: Marcel Babin

Address :

Université Laval - UMI Takuvik

1045 avenue de la médecine

Québec, QC, G1V0A6, Canada

OPERATION *(if Relevant)*

Sampling method : the SCAMP was deployed from inside the camp tent, performing vertical profiles up to 100m depth

Station number-Cast number :

Operation code :SCAMP

RESPONSABLE SCIENTIFIQUE du paramètre / *PI of the parameter*

Nom / *name*	adresse / *address*	téléphone / *phone number*	fax / *fax number*	adresse mél / *email address*
Anda Vladoiu				avlod@locean-ipsl.upmc.fr
Dany Dumont				dany_dumont@uqar.ca

DATASET contact

Nom / *name*	adresse / *address*	téléphone / *phone number*	fax / *fax number*	adresse mél / *email address*
Anda Vladoiu				avlod@locean-ipsl.upmc.fr
Dany Dumont				dany_dumont@uqar.ca

INFORMATION GEOGRAPHIQUES / *GEOGRAPHIC INFORMATION*

Predefined site (if relevant):

Location:

LATITUDE:

LONGITUDE

DESCRIPTION DES INSTRUMENTS / INSTRUMENTS DESCRIPTION *(if Relevant)*

Instrument Type: Self Contained Autonomous MicroProfiler (SCAMP)

Manufacturer: Precision Measurement Engineering, Inc.

Model:

Instrument Features / Calibration:

FAST TEMPERATURE SENSOR

The fast temperature channel consists of the 5316 Fast Temperature sensor and associated circuitry. These circuits are located on the 5264 uDO & Dual T circuit board. The 5316 Fast Temperature sensor consists of a fast thermistor and a compensating resistor. The fast thermistor is a Thermometrics FP07DB104N.

DESCRIPTION DES PARAMETRES / *PARAMETERS DESCRIPTION*

Ce qui a été collecté, mesuré et comment / *How was the parameter collected and measured (include references for analytical methods)?*

Sampling: The SCAMP is lowered from the Zodiac at each full station. acquiring data at a frequency of 100Hz, down to 100m depth. The SCAMP is used in downward mode, free falling through the water column at roughly 10cm/s, sampling up to 5-6 profiles per station.

Analytical procedure : (briefly, could be a short recall to a published reference):
The dissipation rate of turbulent kinetic energy ε was obtained from fitting the theoretical Batchelor spectrum to the SCAMP inferred microstructure temperature gradient spectrum using the modified maximum likelihood method of Ruddick et al. (2000), implemented in the SCAMP MATLAB PROCESSING AND DISPLAY SOFTWARE (P/N 5530), over segments of 1 m depth. More details concerning the method can be found in Cuypers et al. (2012).
The diapycnal diffusivity Kz was parameterised as a function of turbulence intensity Reb for different turbulence regimes (Bouffard and Boegman, 2013).

Units:
- rate of dissipation of turbulent kinetic energy W/kg
- diapycnal diffusivity Kz m^2s^{-1}

Sensor Precision:

Décrire quels types de données sont nécessaires pour vous compléter votre propre jeu de données **avant** envoi à la base de données, et estimer le délai avant la disponibilité de vos données pour la base de données / *Post-cruise data analysis/treatment required, and the time frame for this*

Estimated Date of Delivery :
spring 2017

REFERENCES BIBLIOGRAPHIQUES